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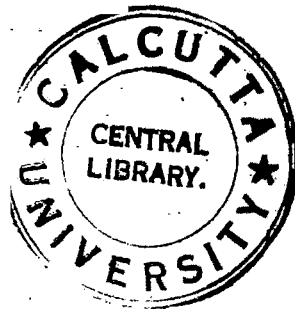
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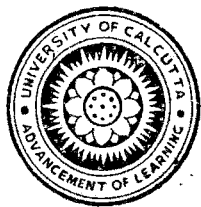
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[No. 1

THE WILSONIAN TRADITION AND ASIA

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The Wilsonian Tradition in Asia is a particularly appropriate and timely topic for consideration: appropriate because of the remarkable similarity between the principles expressed in Wilson's ideals and the principles running through the main body of thought in Asia; and timely, for the world is confronted with instruments of war—the atomic bomb—that, if used, there would be war without a victory. The Wilsonian Tradition provides a common basis of thought with the dominant ideas of as yet uncommitted peoples of Asia whose future course may well determine the fate of civilization. President Eisenhower with all of his knowledge and experience in the art of war has recently stated that there is no alternative to peace; peace must be obtained within our time or man is faced with his own self-destruction. The prospect that the Wilsonian Tradition offers a common basis of understanding with the nations of Asia whose peoples represent one-third of the population of the world and who control approximately the same proportion of the resources of the world should be thoughtfully considered by any one concerned with the complex and perplexing problems of international relations.

An examination of the Wilsonian Tradition in Asia might best begin with Wilson himself, the values and beliefs he holds to be the basis for one's conduct. These principles have been given the titles of "The New Freedom" as they apply to the domestic affairs of the nations and "The New Diplomacy" as they apply to the role this nation should follow in international affairs. For both Wilson

there is a moral basis for one's conduct. The man of the Wilsonian Tradition was "distinguished by his constant awareness of high motives. Many men strive to subordinate selfish interests to universal ethical principles, and occasionally some succeed. A few act nobly from habit or impulse; but in a world of Woodrow Wilsons, men would scrutinize their every move in accordance with the most rigorous moral standards, deliberately select the highest motive applicable to the situation, and only then act upon it. "... He was determined not to indulge his emotions lest he reach a decision that might seem unworthy in the cool light of history, for his conception of morality was the product of solid intellectual conviction, not a thin rationalization of emotional inclinations. He believed that self-control, not self-assertion, was the first requisite of righteousness, for in his mind morality was not instinctive but rational, and the dictates of this higher reason were revealed only to those who would rid themselves of the animal spirits and exalt the spark of divinity common to all mankind." ¹

If the true worth of a man depends on his moral qualities, the greatness of a nation composed of men is determined by its moral qualities. To Wilson and the Asian alike, spiritual, not material factors, make a nation great. A nation was strong, so Wilson believed, in so far as it embodied spiritual and moral qualities. "There is nothing," Wilson wrote, "so self-destructive as selfishness... Whereas the nation which denies itself material advantage and seeks those things which are of the spirit works... for all generation, and works in the permanent and durable stuffs of humanity." The closeness of this factor in the Wilsonian Tradition to the dominate theme in Asian thought of the primacy of moral force in determining the affairs of men and nations is revealed in the following tribute Prime Minister Nehru paid to the moral force that the spiritual leader of India in the 20th century, Mahatma Gandhi had. Speaking before the United States Congress sitting in a joint session to hear his address the Prime Minister stated: "In India there came a man in our own generation who inspired us to great endeavour, ever reminding us that thought and action should never be divorced from moral principle, that the true path of man is truth and peace. Under his guidance we laboured for the freedom of our country, and with ill-will to none, and achieved that freedom..."

With the same strong belief in a moral basis for the greatness of a nation, the Wilsonian Tradition and Asian Thought reflect remark-

ably similar conception of (1) abhorrence of war, (2) neutralism, (3) self-determination, and (4) equality of all states regardless of size or strength. The first of these, abhorrence of war, is expressed more strongly in the Asian belief in non-violence. Even without having witnessed the destructive force of the atom and hydrogen bombs, Wilson viewed the organised violence of war, as does the Asian with the teaching of Buddhism and Hinduism, particularly of Gandhi, as the supreme folly and tragedy of mankind. Wilson's whole nature "rebelled against the loss of emotional and intellectual discipline, the surrender of love to the instinct of hatred, and the very denial of civilization which were implied in war."² He was not, however, a doctrinaire pacifist. In a speech early in 1911, long before the entrance of the United States into World War I seemed to be a compelling necessity, he stated that moral duty under some circumstances might require the use of arms: "There are times in the history of nations when they must take up the instruments of bloodshed in order to vindicate spiritual conceptions. For liberty is a spiritual conception, and when men take up arms to set other men free, there is something sacred and holy in warfare. I will not cry 'peace' as long as there is sin and wrong in the world."³ This view of the necessity of resort to war is not too divergent from the Asian principle of non-violence. Even Gandhi, the great spiritual leader of India whose teachings influence all Asia, if not the entire world, and who did not countenance the use of violence in India's struggle for freedom, conceded the existence of circumstances in which war was the instrument of final resort. Speaking in Washington before a joint session of Congress, Gandhi's successor as the leader of the people of India and one of the chief spokesman for Asia to the Western world, Nehru, stated: "The objectives of our foreign policy are the preservation of world peace and the enlargement of human freedom—We have to achieve freedom and [have] to defend it—We have to meet aggression and resist it and the force employed must be adequate for the purpose...Where freedom is endangered or justice threatened, or where aggression takes place, we cannot be and shall not be neutral."

The Wilsonian Tradition calls for a neutralism that is not only consistent with the moral values that the Asian holds, but also fits the logic of the situation, both the historical, cultural and the contemporary, pragmatic aspects in which the nations of free Asia find themselves today. Even to the casual observer it is clear that the foreign policies of the as yet uncommitted nations of Asia are based on

neutralism. Although neutralism is derived from the moral basis on which Asian society rests, this policy meets the empirical demands that the new states with their recently won independence face in transforming an 18th century society into a 20th or even perhaps a 21st century one, quickly without destroying the values on which that society is based. These nations need time and peace to develop institutions and means yet to be determined in some instances the resources of the country to meet the problems of unemployment, hunger, ill-health, and illiteracy. Considering these factors could this not be Prime Minister Nehru of India, Prime Minister Nu of Burma or President Soekarno of Indonesia speaking, rather than Woodrow Wilson ?

"It was not merely because of passing and transient circumstances that...we must keep free from entangling alliances. It was because...no country had yet set its face in same direction...We cannot form alliances with those who are not going our way ; and in our might and majesty and in the confidence and definiteness of our own purpose we need not and we should not form alliances with any nation in the world. Those who are right, those who study their consciences in determining their policies, those who hold their honor higher than their advantage, do not need alliances. You need alliances when you are not strong, and you are weak only when you are not true to yourself. You are weak only when you are in the wrong ; you are weak only when you are afraid to do the right ; you are weak only when you doubt your cause and the majesty of a nation's might asserted."

Wilson's conception of neutralism—as long as he was able to hold to it against the onrush of World War I—comes remarkably close to the Asian conception of neutralism, which is the basis for the international relations of the countries of India, Burma, Ceylon, Indonesia, and Thailand. As did Wilson the leaders of Asia today are striving to avoid involvement in the conflict between the two great power blocks—a conflict that no present leader in free Asia sees clearly the origins, and consequences of the present cold war as affecting the future, the immediate future at least, of Asia. Wilson believed, as do the Asian leaders, that a policy of neutralism would enhance the role that the neutral country could perform in mediating between the conflicting powers to bring about a just and lasting peace. Wilson implored the American people to "act and speak in the true spirit of neutrality, which is the spirit of impartiality and fairness and friendliness to all concerned." In the crisis of World War I, America should show herself as a "Nation fit beyond others to exhibit the fine poise of

undisturbed judgment, the dignity of self-control, the efficiency of dispassionate action; a Nation...which keeps itself fit and free to do what is honest and disinterested and truly serviceable for the peace of the world." This statement is the sense of the meeting held last spring in Bandung where 29 representatives of African and Asian countries met to consider the role of the nations of that area in world affairs. The position taken there was that a policy of neutralism should be the one to follow to maintain independence of the two dominant world powers and to pursue that position, thus enhanced, in the interest of peace as a mediator and as a spokesman for the nations not directly involved in international disputes but which have an interest in the outcome. Both this position and that of Wilson calls for a neutralism that is, shall we say, positive, not passive; active towards peace, not withdrawal from the conflict.

It was Wilson's expression of the principle of self-determination of all nations that brought the greatest contemporary response in Asian minds to the ideals he was championing. For the peoples of British India and Burma, French Indo-China, and Dutch Indonesia, Point V of the XIV Points was a specific answer to their claims for independence or at least some direct participation in governing themselves. In it Wilson called for "a free, open-minded and absolutely impartial adjustment of all colonial claims based upon a strict observance of the principle that in determining such questions of sovereignty the interest of the population concerned must have equal weight with the equitable claims of the government whose title is to be determined." Little did it matter to the Asian if Point V could be construed, as the colonializing European powers so did, to apply only to the colonies of the vanquished Germans whose title to them was now in doubt. For too long and too often had Wilson repeated, as he did in his second Inaugural Address on March 5, 1917, the principle made famous by the Declaration of Independence that "Governments derive all their just powers from the consent of the governed and that no other powers should be supported by the common, thought, purpose, or power of the family of nations." If this principle was to be valid, it had to apply to all nations alike, not alone to the defeated powers. The belief that Asians held that it should apply to them alike was made clear by the presence at Versailles of Ho Chi Minh, then a young Asian nationalist who had not yet turned to communism as the means of achieving freedom for his country, who had come to France to demand on French soil an end to French colonialism on the soil of Indo-China.³

Standing as Wilson did at the conclusion of World War I, as the leading spokesman among the victorious nations for "fundamental human rights...those rights of humanity without which there is no civilization," Wilson offered hope and inspiration to the leaders of the peoples who were struggling to be free. His speeches and proclamations were printed in great quantities and widely distributed in Asia. Even though the European nations did not choose to heed, the Asians did and the Wilson Tradition proved to be a great stimulus to the growth of nationalism in Asia. In Burma nationalism "received its first important impetus during World War I, deriving encouragement from the activities of the Indian National Congress and from President Wilson's advocacy of self-determination for dependent peoples."⁴

Although it is clear that the XIV Points were addressed to Europe, it should not be ignored that the Asian peoples put their own interpretation to mean that the principle of self-determination would apply or certainly should to *all* colonial areas. If these principles were desirable for the Western world why should they not be equally desirable for Asia? What the colonial Western powers failed to realize, so concludes Professor Nathaniel Peffer in his study *Prerequisites to Peace in the Far East*, was that "the effects of the first World War were no less deep and lasting in the East than in the West, where it was fought. For throughout the East [Asia] the war gave tremendous impetus to currents of native nationalism. These had their sources in the times, to be sure, and would have arisen in any circumstances but without the war they would not have had the force they acquired in the post-war decade and that decade might have been different. What would have been a slow gathering process was telescoped into a few years. The reasons are not easy to discern. The wide discussion of the Wilsonian body of ideas, Professor Peffer continues, with their emphasis on the "rights of small nations and international justice, was enough in itself. It awoke national consciousness where none had existed before and sharpened such as already existed."⁵

Next to the principle of self-determination, the equality of all nations to full participation in the affairs of the world, as they affected them, was most readily received by the Asian who views that equality as a corollary to independence. Wilson, however, was explicit and emphatic in stating that: "no nation should seek to extend its polity over any other nation or people, but that every people should be left free to determine its own polity, its own way of development,

unhindered, unthreatened, unafraid, the little along with the great and powerful." Even though all but a small area of Asia now exercises the right of self-determination, the principle of equality of all nations, large or small, new or old, has not, in the opinion of Asian leaders been put into force. The failure of the large nations to give due consideration to the interests of smaller and new ones is a constant complaint heard from Asia. Prime Minister Nehru of India, for one, has insisted time and again that no longer can the affairs of Asia be settled in conferences in London, Paris, or Washington without the active participation of representatives from Asia. The negotiations for a settlement in Korea prompted the following comment on this point by Nehru. "In these matters, which are no doubt matters of world importance and in which every country of the world is entitled to take an interest, nevertheless geographically and otherwise many of these matters relate to a part of Asia and it does not seem becoming to me that the problems which affect Asia and which are happening in Asia should be disposed of largely by ignoring Asia. That seems to be a wrong approach, and that approach is one which will produce results less and less as time goes on. Even now it is becoming a rather difficult approach; tomorrow, the day after, it will become still more difficult till it becomes quite impossible. It is not proper that these vital problems of Asia should now be disposed of as if the countries of Asia do not count very much."

Not only did Wilson speak of world order in which all nations, large or small would carry on their relations with each other on the basis of equality and justice, but he was able in one important instance at least to put his professed principle into practice. In negotiating a treaty with Siam (now Thailand) after World War I, Wilson led the United States into being the first nation to give Siam the equal rights, without compensation or secret understanding of any sort, that he had championed. "The preamble to the American treaty stated that its revision was based on principles of equity, and that generally speaking the citizens of both countries were placed on equal footing....This was the first time that a Western nation had agreed to submit its nationals...to the jurisdiction of the courts of an Asian nation."⁶ This treaty which in effect abandoned for one Western nation at least, the claims of extra-territoriality for its citizens in Asian countries, was a great moral victory, although regrettably it was not followed by analogous concessions on the part of the European powers which had far more influence in Siamese destinies⁷:

Historically then the Wilsonian Tradition gave expression to and recognition of the felt needs of the Asian people who were starting on the road to freedom that was reached, for most of them, with independence in the wake of World War II—a war which Wilson foresaw with all its terrible tragedy if peace was not securely based on “the rights of people, not the rights of governments—the rights of peoples, great or small, weak or powerful—their equal right to freedom and security and self-government, and to a participation upon the fair terms in the economic opportunities of the world....” The world knows now that to whatever extent the Wilson Tradition was accepted in Asia, it was rejected in Europe and ignored in the United States, ignored until the realities of World War II forever sealed the fate of the United States with the other nations of the world. Wilson had warned that: “We are participants, whether we would or not, in the life of the world. The interest of all nations are our own also.... What affects mankind is inevitably our affair as well as the affair of the nations of Europe and Asia.”

What has transpired since Wilson lived and spoke has then not so much repudiated the Wilsonian Tradition and its appeal for Asia but rather has vindicated it. It is in the fulfilment of these ideals that the Asian nations look to the United States for the moral leadership that will bring peace into the world. This hope rests not on the authority of Wilson alone but on the ideals and principles of the American Revolution for which Wilson provided a 20th century interpretation to the subject peoples of Asia who were denied the enjoyment of self-evident Truths for which the American colonials fought to enjoy. The American people were reminded of this when Prime Minister U Nu of Burma spoke at Independence Hall in Philadelphia, July 3, 1955, and said; “The ideas and ideals, the ringing words and slogans of the American Revolution, have a tremendous importance to all men who struggle for liberty. In all parts of the world where men live under tyranny, or under foreign domination or in feudal bondage, those who dream and plot and fight for freedom do so in the name of the eternal principles for which your Revolution was fought. In those parts of the world, the ideas of the American Revolution are today the most explosive of all forces, more explosive in their capacity to change the world than B-52's or even atomic bombs.”

The Wilsonian Tradition, founded by the 28th President of the United States whose Centennial is being observed this year, then forms one of the strongest links between the United States, the leadership of the world towards peace and the uncommitted peoples of Asia

who drew from it inspiration, courage, and determination to struggle for independence against far more overwhelming odds than did the embattled farmers who stood at Lexington and fired the shot most assuredly, we now know, heard around the world.

Former American Ambassador to India, Mr. Chester Bowles, who has demonstrated his understanding of the mind of Asia, called for a return to the principles embodied in the Wilsonian Tradition if we are to win the peoples of Asia to our side in the struggle for peace. "Whatever the reservations of his critics, no one can deny that Wilson demonstrated the power of ideas on men, the tremendous vitality of American leadership when harnessed to the ideal of a complete democratic worldwide revolution. From the days of the social welfare measures of the New Freedom in his first administration, to the end of his public career, Wilson was aware of the human dimension of politics and deeply committed to the pursuit of meaningful democratic goals, not only in America, but abroad."

In the final analysis, the appeal of the Wilson Tradition is not to the Asian alone and does not rest solely on the high and admirable ideals of its spokesman. The validity of the Wilsonian Tradition is that it speaks for all mankind, it is a Declaration of Human Rights, for all peoples, not Asians alone. Time and circumstances made the appeal more immediate for them, but the appeal is also to all those who see, as Wilson did, that "The supreme task, which is nothing less than the salvation of civilization, now faces democracy, insistent, imperative. There is no escaping it unless everything we have built up is presently to fall in ruin about us, and the United States, as the greatest of democracies, must undertake it....There have been other nations as rich as we. There have been other nations as powerful. There have been other nations as spirited. But I hope we shall never forget that we created this nation, not to ourselves, but to serve mankind."⁸

It will not be inappropriate here, I hope, to close by drawing your attention to an incident of history that perhaps sums up the thesis of this paper. Mahatma Gandhi, the great spiritual leader of Asia who spoke to the world for all mankind, often sang as his favorite Christian hymn, "Lead Kindly Light, Amid the Encircling Gloom," the hymn which was also the favorite one for Woodrow Wilson. When the President presented the Versailles Treaty to the Senate for ratification he concluded his appeal thus: "the stage is set, the destiny disclosed. It has come about by no plan of our conceiving but by the hand of God who led us into this way. We cannot turn back. We

can only go forward, with lifted eyes and freshened spirit, to follow the vision. It was this that we dreamed at our birth. America shall in truth show the way. The light streams upon the path ahead, and nowhere else." So close in principles were these two great leaders of men, one for Asia and one for the West, that their selection of the same hymn as an expression of their faith, hope, and aspirations for mankind is perhaps, more than an historical coincidence. Let us hope so.

CERTAIN ASPECTS OF THE UNITED NATIONS

DR. P. K. BANERJEE, M.A., B.L., D.SP.E., LL.M., PH.D., I.F.S.

There is an increasing recognition that the United Nations neither is, nor was meant to be, a separate and overriding authority over its Member States, but it is rather a great association of fully independent sovereign nations where all action or inaction is inescapably determined by the respective policies of the participating sovereign governments. In other words, the United Nations is working as an institution not in any unitary sense, but merely as a machinery through which sovereign States may act when and as they please. The Charter is a treaty among sovereign national Governments. The organisation is a voluntary association of fully independent nations.

/ It is true that in 1945 and 1946 there was a widespread illusion that the United Nations was or would soon become some sort of super-national authority that could vote world laws and enforce them the way a national government does. This illusion has not yet disappeared completely because to a number of people the Charter resembles a national constitution. The Assembly and other organs of the United Nations, debate and vote very much the way national legislative bodies do. They, however, do not realize that all these debates and votes in the United Nations do not result in enforceable world laws. They result, in fact, in recommendations to the Member States and depend upon the voluntary action of these Member States for carrying out the recommendations.

There is, however, only one circumstance in which the United Nations might have the constitutional authority to order Governments around. That circumstance would, under the Charter, depend on several conditions. If the military agreements placing forces at the disposal of the Security Council that are contemplated in Article 43 of the Charter were actually drawn up and ratified by all the five Great Powers, if the same five Great Powers were subsequently to agree unanimously in the Security Council that a breach of international peace had occurred regarding the use of these forces to restore peace and security, then the Governments concerned would be lawfully required to obey the decision of the Security Council. It would be an understatement to say that neither eventuality is likely in the foreseeable

future and that no order for the use of forces has ever been issued. In this regard, there appears to be some misconception in some quarters with regard to the case of Korea. The Security Council, it may be recalled, contrary to a widespread impression, issued no order. It only recommended aid to the Republic of Korea. In other words, the provision in the Charter regarding the strictly limited power of command has always been in-operative and is likely to remain so. In accordance with Article 2(1), the United Nations is based on the principle of sovereign equality of all its members. In fact, the General Assembly has the power to discuss and take note of any matters subject to Articles 2(7) and 12(1) and make recommendations. Members are, however, not bound to accept recommendations. The General Assembly was much strengthened at San Francisco, as compared with the Dumbarton Oaks proposals and its field of functions, now includes anything which may arise under the Charter. The other limitation with regard to discussion, is that any subject which is on the agenda of the Security Council should not be considered by the General Assembly.

It has already been pointed out that the Security Council has authority for enforcement. / This authority, however, is subject to the veto. No enforcement decision can be taken without the concurrence of all five permanent members. This is no doubt a serious limitation and insurmountable difficulty. In this connection it may be mentioned that the role of the Security Council having primary responsibility in the maintenance of peace is in point of the fact that the Assembly should not take action on questions that the Security Council is seized of. However, the Security Council should report to the General Assembly every year with regard to its activities. This would prevent the General Assembly from making recommendations to the Security Council on the very same questions. The prohibition laid down in the Charter is against making recommendation to the Member States but there is nothing to prevent the General Assembly from making recommendations to the Security Council.

The decisions of the International Court of Justice are binding once a case gets there. But the jurisdiction of the Court is limited to cases carried by the 'Optional Clause' (Art. 36 of the Statute) and others brought to it by agreement of parties. Member States who have accepted the optional clause of Article 36 of the Statute have done so with reservations, for example, the United States, which further restrict the compulsory jurisdiction of the Court.

The General Assembly, in view of the character of composition, does not have the quality of a unitary institution, as has already been indicated above. This aspect could further be illustrated by a

hypothetical, though not practical example: namely, the General Assembly may accept the credentials from the representative of China. This procedure, of course, would not be binding on the Security Council which may continue to have Formosa China as its member.

It appears, therefore, that the United Nations is an institution not of a unitary type. The sovereign independent member states are free to initiate or accept any matter and decision of international importance. The decisions of the United Nations have only the authority that is conferred upon them by virtue of the fact that they represent the conscience of world opinion. Such decisions may have considerable moral and popular pressure behind them but they have no binding authority. It should also not be overlooked that, though collective security remains a primary purpose of the Organisation, it has a less spectacular but more frequently useful role to play in the world affairs. This role is to serve as a forum for much needed multi-lateral diplomatic activities. (The United Nations is not so much a legal order as a political system where multi-lateral diplomatic negotiation, to complement normal diplomatic approach, is of great importance. In this connection it may be mentioned here that the formation of the Asian-Arab group inside the United Nations and last year's meeting of the Asian-Arab countries in Bandung is a typical illustration. People who were associated with the formation of this group would recall that during the discussions about Korea in the United Nations it was the Indian delegate, Sir B. N. Rau, helped by Ambassador Entzan of Iran and Ambassador Palar of the Indonesia, who invited informally for the first time the members of the Asian-Arab countries to discuss the Korea situation.

Nevertheless, it will be interesting to examine a definite trend in the activities of the United Nations particularly in social and economic spheres, towards strengthening the United Nations as an effective, centralized organ.

Even in the political sphere, the adoption of the "Uniting for Peace" resolution by 52 Member States voting in favour, 2 abstaining, and 5, led by the U.S.S.R., voting against, is a demonstration of this trend. It is true that this resolution entitled "Unifying for Peace" was not adopted unanimously. But all Member States agreed on the crucial importance of the resolution. In this connection it may be recalled that in June 1950 the United Nations Security Council, which has the primary responsibility for the maintenance of peace and security, acted swiftly and decisively to meet the armed attack in Korea. Within a few hours of the outbreak of fighting, the Council pronounced the attack a breach of the peace and recommended all Member States,

as has been mentioned above, to give every assistance to the Republic of Korea. The overwhelming majority of members shared the common concern to stop aggression, though only a few of them, 15 Member States, could make actual contributions due to various internal and other reasons.

Though the great majority of the Member States approved and supported these measures, nevertheless the Security Council could not have taken any of these steps but for the absence of the representative of the USSR in its meetings at which the decisions were taken. It is argued by some that, in the absence of the representative of the USSR, the adoption of the resolutions by the Security Council was illegal. This is untenable through numerous substantive decisions, because the Security Council had established beyond doubt that abstention of a permanent member was not to be counted as a veto. So far as voting is concerned, there can be no distinction between the absence of a member and abstention from voting. But the reality of the situation attracted immediate attention of the majority of the members of the United Nations. Supposing, they argued, another such crisis breaks out, and the Security Council is unable to act because of Great Power differences expressed by the veto—then should the United Nations take no action? (“Uniting for Peace” resolution decided in effect that when any such situation arises, the General Assembly, in which body important resolutions require only a 2/3 majority of states present and voting, could take up the matter and make any recommendations to the Member States. The resolution, *inter alia*, laid down the assertion of the right of the Assembly to step in when the Security Council is unable to act owing to Great Power differences and to make recommendations including those to use armed forces. All the other provisions of “Uniting for Peace” are intended to make collective measures to restore peace and security both speedy and effective. It set up a Peace Observation Committee. It appointed a Collective Measures Committee, and it recommended joint action for economic and social progress. “Uniting for Peace” resolution, therefore, has paved the way for making the General Assembly the prime organ among the principal organs of the United Nations. By a simple procedural vote, an item could be removed from the agenda of the Security Council. The General Assembly can then take up the matter and assume full responsibility without being hampered by the provisions of Article 12(1) of the Charter.)

The unitary character of the United Nations, particularly in the economic and social fields, is increasingly becoming prominent. Since 1945, 600,000,000 people have won their independence, for their nations,

and many millions more are moving in the same direction. This fact demonstrates the wisdom of the full recognition given to nationalism and national aspirations as laid down in the Charter. Never has the spirit of national independence been stronger in the world or gained greater peaceful victories than since the establishment of the United Nations.

What is known as Technical Assistance to the underdeveloped areas of the world, particularly those vast areas in Asia and Africa, where poverty is still an inseparable condition of life, is no more only a local problem but an international concern. To assist in improving the living conditions of the peoples in these areas by material help and know-how is a major task of the United Nations. It is a responsibility for which the United Nations is particularly well suited by its international character. In the United Nations the developed countries of the west and the countries which are emerging from colonial or semi-colonial dependence are equal members.

The United Nations is engaged in the study of numerous problems, from which study emerge matters which are referred to a particular agency working in that field. The Economic and Social Council may make recommendations concerning such matters to the agency or agencies concerned, or to Member States, or to the General Assembly, and it may consult with the agencies for this purpose. Under Article 64, the ECOSOC is entitled to "take appropriate steps to obtain regular reports from the specialized agencies." The Council may transmit to the General Assembly its observations on these reports, and though, strictly speaking, neither has authority to require action, its critical comment always has great influence on the activities of these committees. The specialized agencies agree to put upon their agenda items referred to them by the United Nations; reciprocally, ECOSOC and its commissions, and the Trusteeship Council are to include on their agenda items proposed by the agencies. Formal proposals by the United Nations to any agency are to be acted upon as soon as possible by that agency, which is also to consult with the United Nations and to report to it the action taken. Similarly, the specialized agencies, under Article 66, may ask the ECOSOC to perform services for them. The various specialized and humanitarian agencies of the United Nations are under the overall supervision of the General Assembly. This responsibility of overall supervision has further strengthened the unitary character of the General Assembly in recent years in the economic and social fields.

The control of the purse strings of the United Nations budget has also come to be a very important factor in the matter. The idea has

been advanced of a consolidated budget for all United Nations organs and the specialized agencies. Article 17 of the Charter authorizes at present; no more than examination of the budgets of the agencies "with a view to making recommendations to the agencies concerned." Thus the United Nations has no authority to change any agency budget, though its recommendation would be of powerful influence. It is agreed that as a matter of principle, close budgetary and financial relationships are desirable for efficient and economical co-operation. Each agency submits its budget annually for the consideration of the United Nations. Whenever the idea of the consolidated budget for the United Nations and the Specialized Agencies may come into being, which may possibly materialize in the near future, the authority of the General Assembly in this field, as a centralized organ, would be powerful and unchallengeable.

Thus, the United Nations is working as a well-knit unitary organization, in the economic and social field, aided and helped by different organs and agencies to eradicate disease, poverty, hunger and illiteracy. In this great effort, all the Member States are not only pledged but also actively associated through their manifold contributions. To meet this challenge and to be able to fulfil the hope and aspiration of millions of people all over the world would mean strengthening the cause of peace and through it, strengthening the United Nations.

United Nations' effort to negotiate and settle political disputes is more spectacular. Its activities in the socio-economic sphere are slow and less dramatic, but nevertheless, most important to build up a peaceful and progressive new world.*

* The author was a Member of the Permanent Delegation of India to the United Nations, New York, from 1951-1954. Views expressed in the article are those of his.

ON WRITING A HISTORY OF SCIENCE

P. C. BANDYOPADHYAY

The Keynote of Civilisation

Many scholars have been accepting the history of science as synonymous with history of man's advancement. The ancient society arising out of agriculture bifurcated into crafts and trade and then the ancient man's progress has been marked by his excursions into the fields of art, architecture, religion, literature and philosophy. Much advance was achieved through science and technology and it has recently become a new basis of re-reading the history of human civilisation. Scanning the intellectual movements through the ages, we can follow the process of transformation of the earliest man's philosophy into "natural philosophy". This in the course of time separated out into science and technology. This transformation took place because of the development of social consciousness in the material resources around. Man tried to transform his environment and natural resources continued to be increasingly utilised for improving the amenities of his life.

In the Eastern countries which had been the homes of the earliest civilisations societies had essentially religious cores. The intellectual movements did not spread their branches far and wide. The leaders of thought lived as a class apart owing allegiance not to the society at large but to the religious minority who cut adrift from the humdrum of life. Winter in his *Eastern Science* (1952) writes truly, "The approach to truth by way of scientific investigation of matter, which would seem to give no meaning to ultimate cause, was of doubtful appeal, and such an outlook has frequently coloured whatever attempts have been made in the scientific field in the East. It is therefore useful to regard the past history of Eastern science within its philosophical context and to expect little emphasis upon technological development which the Western mind has to-day come to regard as discovery. The old term, "natural philosophy" might well be revived and applied to it."

Need of a New History

Recently there has been a little flutter in the dovecots of Indian history. Narrative histories are being rewritten divorced from the old British Empire-building outlook and certain special epochal histories

are also being written on commission from the state authorities. A history of science with particular-reference to scientific impact on Indian scene and to the flowering of science on the Indian soil has aroused some interest. The UNESCO South Asia Science Co-operation office in New Delhi for the first time brought together historians and scientists at a symposium in November 1950 to discuss the basis of a history of science in this part of the world. The National Institute of Sciences of India collaborated in this attempt. It is now reported that the Institute has revived its interest in the subject and the Asiatic Society of Bengal has been taking active part in the proposed project of compiling a History of Science in India.

It should be emphasised here that science is truly international in its development and scope of study and also in application. Scientific knowledge has been available to all, only recently the military people are commissioning secret research work. We cannot compartmentalise science by building country-wise walls round certain theories or experimental results first brought out in particular countries. It will be unwise to make out a case for a recognition of one country's contribution and its genius. Science has grown out of international co-operation in thought and action. In the first thousand years the inter-communications among the states or the races were very meagre and certain countries had contributed particular planks of thought which have laid the present huge structure of scientific wisdom and work. When the genius of those countries could not keep touch with the pulsating life of the neighbouring countries, the old countries slumbered and stayed behind. The new countries borrowed knowledge and by building pile after pile constructed a new society, a new way of life,—of work and leisure, of learning and enjoying. The older countries became a prey to waves of invasions of pirates and empire-builders. On this basis India's old contributions to scientific thought have therefore assumed a historical perspective.

The phenomenal growth of science in the West since the 16th century has made India a very slow partner. The present day scientific personnel has a long leeway to cover before they can contribute their mite to the world pool. Nevertheless, the forces which flowered Indian genius and the forces which retarded the growth are worth studying and if the title of the projected work should be History of Science in India, we might look forward to some analysis of the factors governing the study and progress of science in the present-day India as well (from the late 19th century to the year of compilation). Such a volume will serve both scholars and administrators.

Riddance from Speculations

Let us now analyse the foundations which a history of science should have. The conventional century-wise periods of history will be no sure guide. The growth or decline of any society is almost entirely the result of the challenges it has to meet and the response it makes to those challenges. We must also remember that one successful response to a challenge does not mean a continuous success. We must trace how far there was elasticity of thought and effort. This elasticity should be searched in the then government, culture (it includes all intellectual exercises), habit, etc. It should be noted that the "source of action" in a given civilisation or historical period has been small minorities of individuals and therefore their place in the society at large is an index of the strength of that society or the state to withstand onslaughts. The decline of such minorities will be a moot point of study.

Science arose out of practical experience. It has been very subtly defined as an attempt to communicate acquired experience with the maximum economy of statement. Scientific knowledge therefore appears only after considerable accumulation of experience. For a long period in the beginning it was merely a commentary upon the general practice of the arts and crafts involved. Not until substantial achievements in analysis had occurred, did scientific thought begin to exert a creative influence upon the process of discovery and invention. In the earlier intellectual movements science has been a factor in the diffusion of knowledge rather than a direct means of new practical achievement.

Butterfield in *The Origins of Modern Science* (1949) has ably explained this aspect of the problem of the source-materials for writing a history of science. "It will be necessary rather to look for the lines of strategic change, and to put the microscope upon those moments that seem pivotal, trying for example, to discover the particular intellectual knots that had to be untied at a given conjuncture. It will concern us particularly to take note of those cases in which men not only solved a problem but had to alter their mentality in the process, or at least discovered afterwards that the solutions involved a change in their mental approach. *** The whole fabric of our history of science is lifeless and its whole shape is distorted if we seize upon the particular man in the fifteenth century who had an idea that strikes us as modern, now upon another man of the sixteenth century who had a hunch or an anticipation of some later theory—all as if one were making a catalogue of inventions or maritime discoveries. It has proved

almost more useful to learn something of the misfires and the mistaken hypothesis of early scientists, to examine the particular intellectual hurdles that seemed insurmountable at given periods, and even to pursue courses of scientific development which ran into a blind alley, but which still had the effect on the progress of science in general. It is also necessary to have a picture of the older systems, the types of science that were overthrown or its development arrested or postponed. “***In both celestial and terrestrial physics, which held a strategic place in the scientific movement—change was brought about not by new observations or additional evidence in the first instance, but by transpositions that were taking place inside the minds of the scientists themselves. It is one of the paradoxes that the most sensational step leading to scientific revolution in astronomy was taken long before the discovery of the telescope.”

Interpretation of Materials

Up till now there have not been any sustained efforts to know the sources of all available texts bearing on the scientific achievements of ancient Indians. Certain sporadic scholarly work has handed down a few volumes. What is needed at the very outset is a very precise definition of classifying scientific thought which will relegate all modern day pseudo-scientific interpretation of old sanskrit writings. Little work is on record for the Pathan and Moghal periods. Some chauvinistic historians and scientists assert that all work was banned or retarded by the alien rulers. Indian society and all societies with the passage of time changed form and purpose. A mere negative attitude to the growth of the Indian society will therefore not clear the confused state of our knowledge. We do not yet have a social history of India, nor any proper study of the social evolution. Perhaps India did not have a compact social organisation stretching over its whole surface; but there were patches of differing social organisations. There came a period of stagnation and perhaps its reasons go back into the later years of the conventional Hindu period. The crux of the situation is that the materials for the study of the progress of Indian society are uncharted and therefore before the scientist can take an interest in the work, the orthodox historians and the linguists, in particular the Sanskrit and Persian scholars, have to catalogue materials, sift those texts and arrive at a tentative time-scale for the scientists to mark the respective advances in the various realms of thought and also in practice.

Professor R. C. Majumdar pointed out in a paper read at the UNESCO-National Institute Symposium on the History of Science, "A professor of history in one of the premier universities of India has maintained that the use of aeroplanes, as an instrument of warfare, was known to the ancient Hindus. He has inferred this from the description of chariots moving in the air and behind the clouds, given in ancient Sanskrit works. The improbability of such a knowledge is so manifest that we need not discuss it at length, but it should serve as a warning that mere reference to a machine unaccompanied by detailed description and general principles of construction does not prove its existence." (Professor Majumdar also referred to a scientist's broad assumptions as to the precise ichthyological knowledge of the old Hindus by interpreting a few slokas in agreement with the modern standards of the subject). We should remember that Leonardo da Vinci drew sketches of flying machines, but he did not see any one fly in the air. The first human flight in the air occurred after over 300 years. In certain mechanical sciences, in Europe it has been observed that practice was in advance of a scientific knowledge of the principles, though treatises on the appliances point out the technical proficiency of the men of that age.

Professor Majumdar also pointed out chronological problems. He said that the safe course might be to divide the whole period into several literary epochs. "But to give even approximate dates to these broad periods is not an easy task. The initial date for the vedic period is, for example, given variously as 2500, 2000, 1000 B.C. with other intermediate dates. The uncertainty of the dates of ancient texts, including Kautilya's Arthasashtra which is now placed by modern scholars between 100 B.C. and 100 A.D., should warn us against laying too great emphasis on the antiquity of any scientific knowledge which may be deduced from any literary work."

The customary periodisation of history will give no clue to the sociological factors concerning the growth and development of scientific spirit in India. An analysis of the processes of social evolution in their entirety requires in addition to the study of thought-processes a study of the processes of invention and processes of their diffusion by adoption or imitation. The analysis of cultural diffusion is no less part of historical problem than the analysis of the social changes occurring in the different culture patterns of two peoples brought together. Adequate historical analysis requires concentration of attention on particular sequence of events. We must begin with the smallest possible units and proceed from those to larger system of relations. The process of social evolution consists in the building up of large and larger system of related events and larger organic units for social action.

The historian analysing the isolated events and the "synthetic events" must be concerned with the process of thought and action at three distinct levels: (1) abstract ideas and concepts, (2) patterns of behaviour expressed as habits of individuals or policies of the society, and (3) explicit action. The elements of social change appear first as idea, which is diffused and assimilated and then it affects patterns of living and starts a social action. The historian will then arrive at the institutional structure of organised social life at the particular period under study. Management of resources including agriculture and transportation is another factor which determined the pace of social evolution. Technology came into being when the size of the population gradually increased and material resources were discovered from nature and used for social consumption.

Search for Documentation

With this analysis, let us see how best the work can be organised. The spadework appears to be immense and therefore before an editorial committee can get to its task (tentative contents) we shall have to organise scholars to search the old pages of recorded history. We have a fair idea of the literary works of the Vedic and post-Vedic period up to the end of the Hindu period. But it is absolutely necessary to fix the dates and the particular editions which will be accepted as the source-material. A good start seems to be to prepare three catalogues: (1) Personalities, all names who are connected with any intellectual movements or creative arts and to fix their chronology in order to group them under definite cultural epochs or social evolutionary periods, (2) Texts, in all Indian languages and also the annotated editions including research works based on them, for example, *Hindu Mathematics* (Datta and Singh), *Hindu Architecture* (Chattopadhyay) and *Hindu Chemistry* (Ray), and finally, (3) Historical monuments and other visual evidence of the old times showing craftsmanship of the ancient people. This work should be split up among a number of regional language groups for ease of compilation and also for easy accesses to the materials or their sources for direct evidence. Such regional groups will serve a central secretariat, which will build up connections also with the various schools of research on history of science in other countries. This is expected to reveal certain unknown threads in the growing fabric of the history of science and will help in our defining the social currents which sustained or marred the scientific spirit. Perhaps a great deal of India's contribution will be found in the earlier stages in the field of natural

philosophy as Winter has defined it. But the scattered evidence in historical monuments does point out a serial flow of natural philosophy into technology. When foreign experts (we know now mostly of the architects) came to India, there must have existed at certain periods an incentive and at the same time there also existed a group of technical assistants or ready man-power to help them, say to build city-fortresses, mausoleums and observatories.

The Indian History Congress might try to re-orient part of modern researches into the spheres outlined above. Sub-Committees will be no solution, but under the proposed regional groups or councils, active scholars must work and report progress to the local councils. Once the catalogues are in hand from the various regions, a union catalogue will throw light on the cross-currents of the developments and then the editorial committee might sit to plan the work. The whole approach to the subject needs a fresh attitude, otherwise we shall be bogged in dynasties and warfare which will appear to have annihilated all fires of intellect and creative arts. The worst of times have often shown the best of human talents. We must go into the wilderness of confused materials, must travel in unbeaten tracks to find the unseen valleys.

The historian cannot do it alone, the scientist has no access to the materials, nor can he read those and the only way out of the confusion is a team work of historians, linguists, scientists and perhaps a few open-eyed and open-minded intelligent men to provide the un-orthodox altitude, who will naturally be not too stewed in current historical or scientific angularities. This role will perhaps be best done by the Asiatic Society which should have the central secretariat.

MALPRACTICES IN EXAMINATIONS*

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Almost every month while looking through the *Notifications Section* of this journal, even a casual reader cannot but be struck with wonder at the huge columns (pages after pages) of roll numbers, names of candidates, examinations, different boards or universities they belong to, centres of examinations, and so on. What are these and what do they indicate? They are nothing but notifications of the nature of unfair means adopted in examination halls and the penalty or punishment imposed upon candidates for having recourse to *malpractices* in examinations!

Passing the examination at the cost of *true* education has been the craze of the day. In our country the dominating force in education to-day is *examination*. We seem to educate our pupils neither for life nor for culture but for examination! We are, in a sense, *examination controlled*. Examinations have become our 'tyrannical and soul-destroying masters' instead of being our 'faithful servants'. To pass the examination by hook or crook is now the ideal for the average student, and real learning has been a side-issue not to a few. The cases of candidates taking to unfair means in examinations are so many and so frequent every year that they require a thorough investigation without any loss of time.

If examinations have become the *summum bonum* to our students, they have become the *raison d'être* of our educational institutions. The reputation of schools, nay their very existence, depends, as a matter of fact, upon the number of passes. The educational institutions have all to ensure a fixed percentage of passes amongst their students, if they are to be eligible for government grant-in-aid benefit or if they seek affiliation to the Board or the University, no matter how they get their pupils passed. Their activities are controlled by the prevailing tastes or demands, namely, scholarships or examination results. As Dr. W. A. Jenkins, formerly Director of Public Instruction, Bengal, observed, "A school's efficiency is judged by the number and percentage of successful candidates at the University or Board Examination. Parents, guardians, and the public are satisfied

* A paper read before the 'Examination Section' of the XXX All-India Educational Conference held in Delhi in December, 1955.

when the results are good; they are dissatisfied when any suggestion is made that time, money, energy shall be devoted to activities not directly concerned with this (external) examination." We are really moving in a vicious circle. Teachers, students, parents, guardians, the public and the educational institutions—all tend to help each other along the wrong path!

Examinations are intended not to cramp or cripple education but to serve as means of testing knowledge, mental power and appreciation of values acquired by individuals through education. The aim of education is not the production of an *examinee* but the production of a man. The purpose of examinations is to see and to measure how far a system of education has succeeded in achieving that aim.

Examinations as tests of merits or efficiency are necessary. But, unfortunately, our *over-emphasis* on examinations has vitiated their purpose. Because of too much stress being laid on examinations, we find the majority of our students putting the cart before the horse,—treating learning and examinations in the reverse order of importance. Naturally, pupils feel more inclined to pass examinations anyhow than to acquire real knowledge and mastery of the subjects they are examined in. Thus, a section of students go so far as to take to various malpractices for passing the examinations. Malpractice in examinations has been so prevalent and widespread that it cannot but draw the serious attention of all thinking persons of the country. This has been so extensive in use among the students in this country that it has been a common affair almost in all examinations. We seem to be so fed up with the affair that sometimes we do not deal with the cases of malpractice so seriously. Time was there when a candidate felt ashamed of his or her conduct if detected in adopting unfair means, while now-a-days, it is rather, as conceived by the candidate, a matter of credit on his or her part. He or she does not hesitate to speak of it openly and highly. It is getting to be considered by him or her as no longer a shameful or heinous act. His or her followers are many. They get one another amused and amazed at intimating the magic tricks they have recourse to during the examination period. They go so far that they not only throw dust into the invigilators' eyes in the examination hall but they cheat them and even beat them occasionally. Sometimes they are alleged of stabbing, and even of killing the invigilators who venture to stand in the way of their nefarious activities in the examination hall. The morale of a section of the student-community has gone down to such an abyss of depravity that they do not scruple to stoop to any amount of meanness simply to get a hallmark even without deserving it in any sense. And this senselessness has possessed them in

such a way that they can hardly tolerate any good counsel, far less an opposition from the supervisors or invigilators.

The growing tendencies in our young hopefuls to have recourse to underhand means seem to be a challenge to the ideas and principles that underlie all educational efforts. These pernicious tendencies have, of late, assumed such gigantic proportions that any measure to check and prevent such evils should brook no delay. But this is merely the philosophical aspect of the thing. To be more practical, it is necessary to probe deep into the causes or conditions responsible for the growth of these dangerous tendencies with a view to finding out proper remedies.

When we talk of malpractices in examination, we evidently talk of our brothers and sisters, our sons and daughters. They live with us and grow in our midst. Their behaviour, their conduct are surely much influenced by ours. Now the persons directly involved in the affairs of examinations are the students or examinees, the teachers, the paper-setters, the examiners. These persons are in the forefront, and the parents and guardians are in the background. Thus, examination is almost an all-concerned affair.

The point at issue is that the number of candidates taking to unfair means in examinations increases year after year. Are all such candidates morally weak or weak in merit? Certainly not. Sometimes it is found that some of them are otherwise good and are sufficiently intelligent and meritorious enough. Sometimes some innocent boys or girls known to their teachers as good students are found to be guilty of adopting unfair means in the examination centre. Now, the question is—"Why do they do so?"

Those who lack in merit may be inclined to take to unfair means in passing the examination. If we know that they lack in merit so much as it is not possible for them to pass the examination, why are they sent up at all to sit for the examination? It is said that the guardians are anxious to have their wards sent up. They are ready to satisfy the teachers with money. They hope that their wards would pass by doing this and that as some such candidates are found to pass. Passing the examination is taken, not by a few, to be a matter of sheer chance. They cherish a hope that their wards will pass, will secure a job and will thus relieve them to a certain extent of the financial strain. Thus, examination is viewed as a matter of certificate and not as a means of testing knowledge or learning. Education, in the ultimate analysis, becomes a question of simply getting bread and butter anyhow and not of acquiring skill and knowledge. The hard economic problems force the guardians to be so *examination-minded*.

Such a distorted view of the examination affair as referred to above is more particularly predominant in this country than elsewhere, because, here there are practically no avenues of employment open to the person who has not undergone university training. The guardians naturally feel inclined to consider education as a 'race whereof the examination marks the last spurt and wherein success or failure is the final seal and stamp of worth'. The Report of the University Education (Radhakrishnan) Commission brings out the point so clearly. It says : " A university degree is a kind of passport for jobs. With the great economic pressure due to the prevailing poverty in the country, the insistence on a university degree as the minimum requirement even for posts of minor officials and clerks has put a premium on a number of evils which have come to be associated with the examination system. It has subjected teaching to the examination, made it almost impossible to provide true education and to develop wider interests, and has created temptations of cheating, corruption and favouritism. The obsession to secure, as it were, a ticket in the lottery of job-seeking has over-shadowed the educational purposes which a good examination can serve " .

The Secondary Education Commission (1952-53) Report has also pointed out the all-pervasive evil in Indian Education in the same vein : " Because of the close connection between employment and the passing of external examinations, the average parent is more interested in his child passing that examination than in anything else. Even the authorities who provide higher courses or employ young people are guided almost solely by the certificates awarded on the results of the external examinations. To this may be added the unfortunate trend in recent times to utilise the marks obtained at public examinations as the sole criterion for admission of students to most colleges. ***the examinations to-day dictate the curriculum instead of following it, prevent any experimentation, hamper the proper treatment of subjects and sound methods of teaching, foster a dull uniformity rather than originality, encourage the average pupil to concentrate too rigidly upon too narrow a field and thus help him to develop wrong values in education. Pupils assess education in terms of success in examinations. Teachers, recognising the importance of the external examination to the individual pupil, are constrained to relate their teaching to an examination which can test only a narrow field of the pupil's interest and capacities and so inevitably neglect the qualities which are more important though less tangible. They are forced to attend to what can be examined; and to do that with success they often have to ' spoon-

feed' their pupils rather than encourage habits of an independent study''.

All educational activities being solely directed by the results of examinations, there is nothing like an educational atmosphere in our educational institutions, particularly in the Secondary Schools. They have become, so to say, commercial houses. They are mere certificate-issuing bodies and not the seats of learning. As the Secondary Education Commission (1952-53) has observed: "It is not uncommon to hear such statements as 'so and so is a good teacher because his pupils show a high percentage of success in the final examination.' Headmasters in presenting their reports at the annual gatherings lay emphasis on the results of examinations and on the brilliant success of some of their pupils, thus provoking the criticism that the report resembled a profit and loss account presented to shareholders of an industrial concern".

It is well known that the majority of students avoid a thorough study of the curriculum and pay greater attention to a number of selected questions or a set of test papers than to efforts at mastering the subject. They neglect composition and free-hand writing or independent thinking. They do not try to write a sentence of their own. They cram without understanding. There are not a few schools where particularly in case of the School Final examinees, the teachers themselves follow the same path. Most of the students neglect their day-to-day lessons and acquire unstudentlike habits, *viz.*, to avoid work and to idle away time, always keeping in view the encouraging picture of the cram-books called by the inspiring names like 'Digests', 'Sure Success', 'Short-cuts', 'Made Easy', 'Essentials', 'Bird's-eye-views', 'Every thing at a glance', 'One-hour Preparation Series', 'Four in one', and much else of such matter as should never soil paper. The result is obvious. In case the crammings done over a period before the examination, often at the cost of health, do not happen to serve the purpose in the examination hall, some examinees try their luck by taking to unfair means, *viz.*, copying from books or from other examinees' papers.

Instances of malpractice in examinations are not only many and frequent but of *varied* types as well. Besides copying from books or papers, examinees are found to talk, whisper or prompt answers to questions among one another in the examination hall. Even some of the invigilators are sometimes so unscrupulous as not only to encourage the examinees but also to take an active part in these nefarious activities of the candidates whom they are appointed to invigilate. Cases are reported where invigilators are detected for

having actively helped in the matter of exchanging answer-scripts. That the examinees who take to unfair means in examinations are not all dull or lacking in merit can be easily seen from the ingenious tactics they adopt, although not always successfully, in making up their deficiency in knowledge of the subject they are examined in. Mention of some of the typical cases of such tactics will not be out of place here. There are some among the examinees who are adept in transcribing nicely on so small a piece of paper as merely one inch long and one inch broad an entire theorem or problem with neat diagram from Geometry in order to copy it down in the answer-script in the examination hall. (Such small scraps of paper 1" x 1" bound in the form of handy exercise-books were once found lying scattered near about an examination hall when B.A. Examination in Mathematics was just over! They contained subject-matter pertaining to Co-ordinate Geometry.) Copying from such pieces of scrap papers is not really so easy a task and it certainly requires a good deal of intelligence to answer questions in the examination hall in such a manner. More or less similar means or tactics go to exhibit that enough of merit and intelligence is possessed by those who take to them. How expert and bold are those who manage to carry answers to possible questions transcribed on the tips of their fingers, on their thighs, or on some other convenient parts of their body! How clever is he who attempts to copy from writings on the handkerchief or on the piece of blotting paper with him! Sometimes on the plea of bug-trouble, an examinee uses on his seat a piece of newspaper or an ordinary sheet of paper wherefrom he copies out answers to some of the questions set forth in the examination and comes out triumphantly by submitting the answer-script if his activities go undetected by the careless or irresponsible invigilators in charge.

Some interesting specimens of malpractices are quoted here from an article published in the *Jugantar*, dated the 28th November, 1950. Once a candidate was found to have on the desk in the examination hall a piece of blotting paper on which were scribbled the candidate's Roll Number, name, subject, name of the examination, year, etc., in a haphazard manner. No one could reasonably object to such entries of Roll Numbers, subject, etc. But the interesting thing was that there occurred a zero against every word in such a manner that if all the zeros would be joined by means of straight lines, one would get the diagram of a particular theorem in Geometry, which seemed to be difficult to the candidate.

Another case was like this. The following paragraph consisting of apparent nonsense syllables was written on a slip of paper in

possession of an examinee: "Aking Georgeb athird's householdb awas theb apattern ofb aan Englishb gentleman's householdb aof hisb atime—virtuousb abut dullb. Athe householdb aof Georgeb athird wasb aremarkableb afor itsb aorderliness andb afrugality. Everythingb aabout itb awas neatb aand tidyb. Ait wasb aearly; itb awas kindlyb; ait wasb acharitable".

Apparently the paragraph is meaningless. But just delete the initial *a* of the first word and final *b* of the second, and then the sense will be clear. Some other cases are also cited in the article in question the author of which was Sri Brajendrachandra Bhattacharyya who contributed to the *Jugantar* a series of articles on this phase of the examination.

All these go to show that lack of merit is not really the cause of the fast-growing incidence of malpractices in examinations in this country. It is lack of proper education that lies at the root of the problem. Again, the problem is not centred round the examinees alone but it is an all-concerned affair as we have already observed.

It is our guardians and teachers who indirectly and sometimes even directly encourage the students to adopt unfair means in examinations. If the teachers of a particular institution be strict and if they do not send up some boys or girls for an external examination, their guardians take them to some other teacher in some other school or college where they are accepted as his students and are sent up for the examination provided the guardians would pay a handsome amount to his institution. Sometimes some guardians or friends of students are found to be present near about the precincts of the examination hall so as to get the books, papers, etc., supplied to their respective candidates appearing at the examination.

Teachers are ill-paid in our country. They are so underpaid that they have to resort to some other means simply to make their both ends meet. Generally they coach students privately. Thus they earn money at the cost of hard labour. Naturally these private tutors can hardly do justice to their work in school classes. Again, the students who do not, or cannot afford to, engage private tutors, suffer much. In order to secure private tutorship, a teacher has to attain popularity amongst pupils. This popularity depends upon the success of the teacher in having the students successful in the examination. The work and worth of a teacher are very often judged by the results of his pupils in the examinations. Sometimes the teachers themselves are found to encourage their pupils to take to unfair means in the examination. It is also a fact that in some cases the teachers have to treat leniently, and unduly as well, the wards of the privileged persons, such

as the Headmaster, Secretary, President of the school, and the like, so as to get their position as teachers secured in the institutions they are employed in. Thus, the position of our teachers is such that they sometimes have to be partial and unjust against their will.

The first step to be taken in the prevention of malpractices in examination should consist in devising such effective measures as would shift the emphasis in our educational system from *examination* to *true education*. Too much examination-mindedness has got to be removed from the field of education in the interests of all concerned—pupils, teachers, parents and the public. The ‘very much examination-ridden’ system of education, as it prevails now, has got to be replaced by a properly educative system of instruction, if we are sincere in our attempts at eradication of the pernicious evil, *viz.*, the habit of malpractices in examination. Pending wide introduction of *objective tests* of attainments of the students at all stages side by side with the prevailing system of essay-type examination, two definite measures could be taken to relieve much that is defective and vicious in the present conditions of our examination system.

On the one hand, the number of examinations, both internal and external, should be reduced, and on the other hand, University certificates or the achievements at a general public examination should not be made the sole criterion for selection of candidates for employment in various public services. The recommendations of the Secondary Education Commission (1952-53) and those of the University Education (Radhakrishnan) Commission may be cited in this connection. Advocating a single final examination for the high school or for the higher secondary school standard, the Secondary Education Commission has suggested: “... there should be only one public examination to indicate the completion of the school course...” The certificate to be awarded to indicate the completion of the middle school or any other school class will be given by the school itself and it will be based entirely on the *school records* which will include the results of periodic and annual test. Regarding the prevalent system of internal examinations, the Commission’s observation is: “The emphasis on one all-important annual examination should be reduced.”** The promotion of a child should depend not only on the results of the annual final examination but also on the results of the periodic tests and the progress shown in the school record.*** For this purpose a proper system of school records should be maintained for every pupil indicating the work done by him in the school from day to day, month to month, term to term, year to year. Such a school record will present a clear and continuous statement of the attainments of the

child in different intellectual pursuits throughout the successive stages of his education. It will also contain a progressive evaluation of development in other directions of no less importance, such as the growth of his interests, aptitudes, and personality traits, his social adjustments, the practical and social activities in which he takes part. In other words it will give complete career." The Commission has also added a few specimens of cumulative record forms in Appendix VII to its Report. These forms may serve as models and the different schools may adopt them with suitable modifications according to their respective conditions.

On the question of desirability of reducing the number of external examinations in the school career, the Secondary Education Commission has gone so far as to suggest: "Even the final public examination need not be compulsory for all; that is, if pupils so desire they need not take it. However, every pupil who completed the school course will get a school certificate based on school records testifying to his progress and attainments in different directions in school".

In order to lessen the importance or emphasis now laid on the general external examinations, particularly on completion of the school course, and thereby to relieve the temptation of the students in taking to unfair means in passing them, selection of candidates for admission to college or university and also for employment in public services should better be made by special tests or examinations without relying solely on the results of the general examinations as is generally done now. University Education (Radhakrishnan) Commission's recommendations in this regard may be implemented with advantage: "We think a great service to Indian education can be rendered if the Indian Ministry of Education set up a machinery of their own, as well as encourage and assist universities and teachers' training colleges in India, to undertake the work of making regional standardised tests needed for use in the colleges and universities in the different provinces.*** If the general body of teachers in a University can be made to take to the use of scientific and statistical techniques in educational measurement, the way will have opened for an objective review of the curriculum, and to a conscious improvement of teaching practice.*** For purposes of admission to college and university, the tests should be accompanied with much additional information and interviews with students when conditions make this possible. It is desirable to get an educational profile of each student by assembling all information pertinent to his record and possibility of success in College".

On the question of employment standards, the University Commission is of opinion that 'a University degree should not be

required for government administrative services. Special State examinations for recruitment to the various services should be organised and should be open to whosoever cares to take them. This would remove one of the chief evils of the educational system'. In this connection, the remark of Dr. Jenkins, who has been earlier referred to in this essay, is enlightening: "In the West, banks, industrial firms, commercial undertakings, farmings, etc., call for the employment of a large number of youths who have undergone education up to the high school stage, but who have not gone through the University. Many of the industrial firms indeed would regard a University training as a disqualification rather than a qualification". In our country, the position is quite different. The employers here, both in Government and in private administrations, select candidates for different offices mostly on the basis of the marks, certificates or diplomas obtained by them at some general public examinations. University degrees are insisted upon for a job which can easily be performed by those who have read up to the school standard.

The incidence of malpractices in examinations can be reduced to a large extent by introduction of the system of compartmental examination for allowing a candidate to take, at a subsequent examination, only those subjects in which he or she fails at the general public examination. A candidate being aware of the position that his fate is not going to be doomed if he or she fails in one or two of the subjects of the general examination, is likely to be not much inclined to take to unfair means for passing all the subjects of that examination as he or she would otherwise be.

Another phase of the existing system of examination is that generally the teachers are not the paper-setters. Those who frame questions for the pupils do not teach them the subjects. It is sometimes found that the questions they set are too high and sometimes some are out of the syllabus even. Sometimes the language of the questions is vague and ambiguous. Thus the pupils get puzzled and they try to take to unfair means. Besides the paper-setters are generally the brilliant scholars of the University. When they were students at schools and colleges they were far ahead of the ordinary students in merit. They may call back their past days but they cannot put themselves just in the same camp of the then students of ordinary merit. So they judge things in the light of their own standard. Hence the questions are not always quite appropriate for the candidates they are meant for. They are sometimes even unfair.

The same facts and points as stated above hold good in the case of the examiners too. Sometimes, some students are found to do

unexpected results in the examination. Again, different examiners cannot maintain a uniform standard and even the same examiner awards different credits to the same paper at different times. The fate of a candidate is therefore affected by the accident of the selection of his examiners. The vagaries of markings in the prevailing system of essay-type examination tend to make the examination-affair a sheer chance for many a student, while the good and really deserving students are sometimes disheartened. The publication of the book • “An Examination of Examinations” has conclusively proved how unreliable and unstable are the examination results and how the present-day essay-type examination is vitiated by the factor of *subjectivity* on the part of the individual examiners. Dr. C. W. Valentine, one of the eminent educationists, who has conducted careful researches in this respect made the remark: “Many students are entering the modern Universities with scholarships much more deserved by other students”.

The vagaries of markings are due to the fact that in the essay-type examination markings depend on the *opinion* of the examiner to a larger extent. Therefore, they vary from examiner to examiner and also at different times. To get reliability and thereby to reduce the element of chance and to earn confidence in the mind of the candidates, the form and method of the examination must be thoroughly changed. “In order to reduce the element of subjectivity of the essay-type tests”, as has been recommended by the Secondary Education Commission, “objective tests of attainments should be widely introduced side by side. Moreover, the nature of the tests and the type of questions should be thoroughly changed. They should be such as to discourage cramming and encourage intelligent understanding. They should not deal with details but should concern themselves with a rational understanding of the problems and a general mastery of the subject-matter”.

As it has already been stressed, due credit should be given to cumulative school records in final assessment of the merits of the individual students. As to reliability of school records, we must trust the teacher, inasmuch as there can be no other better judge of a student's merit than the teacher who teaches him. The testimony of • the teachers should carry more weight. As it has been observed by Norwood Committee on Curriculum and Examination in Secondary Schools, “No one can examine better than the teacher who knows the child, and a method of examination by the teacher, combined with school records, would be devised, which would furnish a certificate giving information of real importance to employer or college or

profession, and yet would preserve in tact freedom of the school and would rid teacher and pupil of an artificial restraint imposed from without. As for uniformity of standards, even under the present conditions two apparently similar certificates mean very different things and illusory uniformity can be brought too dearly". There may be some cases of wrong assessment, here and there, but cumulative school records maintained from week to week, month to month, year to year over so many years spent by a student at the Secondary or the Higher Secondary School are no doubt, more reliable than the marks obtained at the General Public Essay-type Examination on completion of the school course.

Two more points need mention in connection with the problem of malpractices in presentday examinations and its possible solution. An average student feels more encouraged to cram than to master the subjects he is required to study, just because cramming helps him or her to pass the examination. In the present system of education the ability and capacity, interest and inclination of a student are not honoured. For all the students a common course and standard is prescribed. There is no question of *choice* on the part of the student. It is most likely that the candidates who are unsuccessful in the general course of studies, could have proved themselves efficient and successful were they given opportunities in some other courses. There should be specialisation of studies to meet the individual needs of the pupils. To this end, there should be ample provision in the syllabus and *curriculum* of Secondary education for technical and agricultural education besides academic general education. The existing facilities for medical, engineering, technical and agricultural education are very meagre. Opportunities for such education should be extended if we are to make our children full-fledged citizens of the future. General public or external examination on completion of the Secondary or Higher Secondary school course should be restricted only to such subjects as cannot be easily crammed for securing a hallmark, if banning all sorts of "cram-books" or so-called "Success-Series" is considered to be too forward a step in this direction. Examinations would be made much lighter while at the same time the students would gain much more knowledge and teachers would do more real teaching on an educational basis if all subjects were not subject to examination. "I myself", wrote Mr. Quick, "can see no way of escape from this pernicious influence except by taking as examination subjects only such things as cannot be crammed—Mathematics, unprepared translation, composition and the like".

Politics is no less responsible in getting our boys and girls diverted from the regular course of their disciplined life. Ideals of social service are generally formed and cherished in student-life. The hearts of the students in the colleges and in the higher classes in schools burn with desire to help in creation of an ideal society. The politicians in their competition with their colleagues appeal to the generous hearts of the students so as to wrench their support to their respective political cause. They do not hesitate to get the innocent chaps hampered in their real progress in life. And when their goal is achieved, they are generally found to leave them out of shore, advising them not to come in contact with Politics any more. Among the students who are found to take to unfair means in the examination, there is a large number who, being turned adrift by the political movements of the time, neglect their studies in the schools and colleges and ultimately try to win so-called success in the examination by adopting unfair means.

To tackle the problem of malpractices in examinations successfully, it is first of all necessary to create a healthy educational atmosphere not only in our educational institutions but also at our homes as well as in the country as a whole. If the system of education and examinations now in vogue is gradually reorganised and conducted according to the positive as well as negative measures suggested above, it is sure to guarantee that they will perform their functions and purposes efficiently, precisely and accurately and we shall not have to hear of any malpractices in examinations. The fundamental thought of all, whether on political, social or educational matters, should be that salvation lies not in producing *examinees* but in making *full-fledged citizens* of our young children on whom depends the future of the home, the society, the country and also of the world at large.

A STUDY OF INDO-SOVIET RELATIONS

1946-1955

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The recent visit of the Russian leaders has given rise to wide speculations in the West about the future trend of Indian foreign policy—once the promised Soviet technical aid with no strings flows unabated. A short resume of Indo-Soviet relations would help us judge the future portents of this relationship.

The British rulers had tried to create a bogey of Russian armed invasion of India through the North-eastern Frontier since the 19th century. This propaganda was continued as late as the fall of 1939—after the outbreak of World War II, but this could hardly find any response among the Indian people. On the other hand, the Russian Revolution in 1917, which led to the break-up of one of the mightiest Empires, became a source of inspiration to Indian nationalists irrespective of ideological colour. The Communist policy of liquidating unequal treaties with countries like Iran and China, immediate recognition of the independence of Poland and Finland—the former colonies of Czarist Russia, as well as ending colonial exploitation in the regions of Central Asia—could not but evoke deep admiration from the Indian people still labouring as ‘hewers of wood and drawers of water’ for their British masters. The Montagu-Chelmsford Report on Indian Constitutional Reforms (1918) frankly admitted, “The Revolution in Russia in its beginning was regarded in India as a triumph over despotism; and notwithstanding the fact that it has since involved that unhappy country into anarchy and dismemberment, it has given impetus to Indian political aspirations.”

During the World War II the slogan of the People’s War raised by the Indian Communists shortly after the Nazi aggression over Russia, Russia’s silence on the question of India’s independence—presumably because of her being pre-occupied in a life and death struggle, as well as the Anglo-Soviet Twenty Years’ Treaty of Friendship—made Communism and Russia unpopular amongst a large section of nationalist intellectuals. But then the tremendous sacrifice of the Russian people in the War of National Liberation created a sense of high esteem for them among the people. Mr. Nehru said in Simla on 8 July, 1945, “While vague Socialist ideas are popularly admired in

India, and Russian achievements in Central Asia and War have greatly influenced Indian opinion, Communism as such is no great force in India at present." The transfer of power in India was no doubt welcome to Russia, but there were doubts as to whether the substance of power would be exercised freely by the Indians so long as economic dependence on British capital continues. Already before the transfer of power on 15 August, 1947, during the 1946-47 session of the U.N. Assembly, India and Russia, as we know, developed friendly relationship because of similar attitude on many issues concerning colonialism and racialism as well as the questions of the U.N. membership, Disarmament, Atomic weapons and the abolition of Veto—so much so that the Interim Government under Mr. Nehru was dubbed as being controlled by the Bolsheviks in a speech by J. F. Dulles, in January, 1947. But shortly after the transfer of power in the second session of the U.N. Assembly in September, 1947, doubts were roused in the minds of the Soviet leaders as to the motive of the Indian Government because of their attitude on the questions of Korea, Greece as well as the Interim Committee. India, with American backing, ran unsuccessfully against Soviet Ukraine for a Security Council seat in the fall of 1947 in violation of the tacit understanding among the powers for a geographical distribution of Security Council seats. Sardar Panikkar describes the talk he had with Manuelsky when he met the Ukrainian Bolshevik leader in his house in company with Mrs. Pandit, "What is your interest in Korea and Greece? To us these are vital areas for our defence. Why should India interest herself against our interest in these matters?"—such was the general line of his argument. It was clear that Russia had become uncertain of India's attitude and was generally suspicious of our approach to questions of vital interest to her."¹

This estrangement of India with the Soviet Bloc which started in the fall of 1947 was almost coincident with the suppression of the Communist Party by the Government of India. During 1948, India's unequivocal support to the U.K.'s adherence to the Western Union Pact as well as the Western rearmament drive against a 'would-be Aggressor' in the joint communique of the Commonwealth Powers clearly reflected India's distrust about Soviet intentions. It seemed that the Government of India at that time was too much exercised by the spectre of International Communism gaining control over the countries of S.E. Asia—which was assiduously propagated by the Western Press. Their mind was partially revealed in a speech of the late Sardar Patel, on 15 August, 1948, "China, which at one time was

expected to be the leading nation of Asia, had serious domestic troubles Again the conditions in Malaya, Indo-China and Burma were disturbing If the undesirable elements in the country were not put down with a firm hand immediately, they were sure to create the same chaos as they found existing in some other Asiatic countries." This antipathy towards Communism and Russia continued for a further period till it was partially neutralised by the emergence of the Dutch aggression in Indonesia. In the Indonesia Conference convened at New Delhi in January, 1949, no invitations were extended to Soviet Asian Republics and Communist dominated Vietnam (while Australia and New Zealand were invitees), although they had been participants in the Indian-sponsored Asian Relations Conference in March, 1947. The Dutch Indonesian Agreement (December, 1949) sponsored by the U.S.A. which was preceded by ruthless suppression of the Communist elements by the leaders of the Indonesian Republic, was condemned by the Soviet delegates in United Nations as a sham settlement. Indian efforts for an Indonesian settlement through the Asian Conference had been eulogised by the *Economist* (5 March, 1949) as 'taking the wind out of Russian anti-imperialist sails'. Apparently because of bickering in the immediate past, even on an anti-colonial issue as Indonesia, India and Russia could not see eye to eye with each other at the moment.

The setting up of the People's Republic of China in October, 1949, however, completely changed the balance of forces in Asia. Its tremendous significance in world politics was brought to the immediate notice of Mr. Nehru by our scholarly Ambassador in China Sardar K. M. Pannikar—while many of the Western Powers were following an ostrich-like policy. Mr. Nehru not only planned immediate recognition of New China but also pleaded with the U.K. as well as the U.S.A. to face the facts in Asia during his visit to the U.S.A. in October, 1949. In a speech to the Canadian Parliament on 24 October, 1949, Mr. Nehru emphasised that "to regard the present unsettled state of South-east Asia as a result or part of ideological conflict would be a dangerous error". Mr. Nehru also called for a halt to the armament race in his speech at Columbia University. All these facts emphasised a reorientation in Indian outlook towards World Communism, even though the Government of India was following a stern anti-Communist policy in internal politics. It appears that Nehru's anti-communist policies at home as well as in relation to the civil war in Burma and the uprising in Malaya together with the retention of the Commonwealth membership in 1949, led the members of the Soviet bloc to base their policies towards

India on the ill-conceived notion that the Government of India was still tied to the apron string of Anglo-American Imperialism.

By the end of 1949, however, there was a little warming up in Indo-Soviet relations. Russian criticism of Indian foreign policy was in a milder tone. The appointment of Dr. Radhakrishnan as the Indian Ambassador in Moscow in July, 1949, became a positive factor helping Indo-Soviet understanding, as he was, to say the least, completely unaffected by anti-Russian or pro-American obsessions. India signed in 1949, the first series of trade pacts with countries of the Soviet bloc—the new agreement with the U.S.S.R., provided that India would be supplied with 200,000 tons of wheat and maize in exchange for raw jute and tea. India's relation with New China was becoming closer since December, 1949, when formal recognition was extended to the New regime and Sardar Panikkar was reassigned for Ambassadorship in Peking. In internal politics, the worst phase of anti-Communist hysteria subsided due to judicial intervention in safeguarding civil liberties since the inauguration of the Indian Republic on 26 January, 1950, which also coincided with the decline of the extremist wing in the Indian Communist Party. Closer relations with Communist China cultivated through the good-offices of Sardar Panikkar was an important factor in initiating a proper reassessment of India's independent foreign policy by the Russian leaders. At this period India and Russia made a joint front on the issue of inclusion of New China in the United Nations which facilitated mutual understanding between the two Powers. On 26 January, 1950, Chairman Mao Tse-tung as well as the President of the Presidium of the Supreme Soviet, U.S.S.R. sent warm felicitations on the occasion of the inauguration of the Indian Republic.

But the process of rapprochement received a rude shock, when the war started in Korea on 25 June, 1950, and on the basis of hearsay evidence, the U.N. Security Council condemned North Korea for aggression, and voted for a collective armed action on American insistence with Indian acquiescence. Mr. Nehru saw the sweeping advance of the North Korean Army as the sure proof of their aggressive action, and this led him to lend support to the Security Council Resolutions (25 June and 27 June)—which had very doubtful legal validity in the absence of Russia and the Red China. This open alignment with the West—providing India's moral support in favour of a U.S.-led armed action in Korea—evoked wide public resentment in India. Very soon, however, Mr. Nehru was better apprised of the facts about the Korean conflict by his Ambassador in China Mr. Panikkar. He could now see on Mr. Panikkar's persuasions that there could be no

settlement of the Korean questions without bringing in the two Great Powers, Russia and China (next door to Korea), in the fold of the Security Council. Mr. Nehru's appeal to M. Stalin and Mr. Dean Acheson in this respect received warm welcome from M. Stalin while it was brushed aside in the U.S.A. The series of peace overtures made by India since then with a view to localising the war, if not mediation of reconciliation, brought India closer to Russia for a time. India's opposition to the crossing of the 38th Parallel by U.N. armies in October, 1950, as well as the Acheson Plan for Collective Security through the U.N. Assembly, was well appreciated in Russia.

In December, 1950, when the Chinese troops were sweeping southwards across the Korean peninsula and the U.S.-led U.N. armies faced near-encirclement, the Arab-Asian nations under Indian initiative proposed an immediate cease-fire. The Russian delegate, M. Malik, angrily called this an attempt to 'save the American troops from a disaster'. Russian suspicion was roused when the original composite resolution providing for cease-fire as a preliminary step to American recognition of Red China and withdrawal from Formosa and a Political Conference for a Far Eastern Settlement was broken up in two separate parts. The sponsorship of the resolution on Cease-fire being shared by Phillipines, a belligerent against Red China and North Korea, made the Cease-fire proposal suspect in the Chinese as well as Soviet eyes quite legitimately—as Sardar Panikkar himself admits.² But then it produced a temporary bickering, which melted away when India stood firm as a rock on her denial of support to the U.S. sponsored resolution calling China an aggressor in February, 1951. Dr. Radhakrishnan gave immediate and warm support to M. Malik's proposal for Cease-fire along the 38th Parallel in June, 1951. In August, 1951, India refused to participate in the Sanfrancisco Conference for drafting Japanese Peace Treaty initiated by the U.S.A., and her decision in this matter was undoubtedly influenced by the exclusion of Russia and China—the two major Powers in the Far East from its deliberations. Closer understanding between India and Russia became explicit when in April, 1952, M. Stalin who had not met any foreign dignitaries for about two years, granted an interview to Dr. Radhakrishnan the Indian Ambassador on the eve of his relinquishing office. The malignant germs of misunderstanding bred on misinformation about Russia which has been so long propagated by the Western Press and distributed in India to create confusion were almost completely destroyed in this historic interview. So much so, Dr. Radhakrishnan declared in a speech in India soon after

his return to India on August 27, 1952, " We find that at present there is a group of Western nations trying to crush Russia. If Hitler were alive to-day, he would have considered the present moment a supreme triumph of his philosophy." This was indeed a far cry from the Government of India's support to the Western rearmament in Europe in the Commonwealth Communique in October, 1948, against a would-be aggressor.

But then there was again a sudden deterioration in Indo-Russian relations in December, 1952, when Mr. Krishna Menon twisted the original compromise formula on the vexed problem of repatriation of p.o.w.'s which was responsible for dragging on the conflict in Korea for more than a year and adding to world tension. " Briefly ", to quote Sardar Panikkar, " the original proposals suggested a Neutral Commission to take charge of the prisoners with an offer to the Northern allies (the Chinese and the North Koreans) that their representatives should have the opportunity of freely interviewing the prisoners and for giving them necessary explanations. These proposals were understood to have been discussed between Krishna Menon and the authorities in England.³ During the visit of the Indian Cultural Delegation in April, 1952, there was a discussion between Chou-En-Lai and Sardar K. M. Panikkar, and Chou-En-Lai gave him the impression that " on principle the proposals were acceptable to the Chinese, though there would have to be close negotiations about the modalities of control of prisoners during the period of explanations and the interview, etc." ⁴ When the original Indian resolution providing for a Four-Power Neutral Commission taking charge of the p.o.w.'s, till a Political Conference of the interested Powers deliberates and decides upon the future of the p.o.w.'s unwilling to repatriated without force, was presented in the U.N. Assembly in November, 1952, it was violently opposed by the American delegate. British support to the proposals brought in what the *Daily Telegraph* depicted on 24 November, 1952, as ' the sharpest diplomatic cleavage between Britain and the United States in the history of the United Nations '. At this moment, the British Foreign Minister, Mr. Eden personally intervened in the United Nations debates and brought an amendment on 20 November, 1952, to the effect that the future disposal of any remaining p.o.w.'s not decided upon in the Political Conference, should be the responsibility of the United Nations. Mr. Eden himself admitted in his speech that it was a substantial point, and there is little doubt that the plan of amendment was U.S. inspired.

³ Panikkar, *ibid.*, p. 175;

⁴ *Ibid.*, p. 175,

The Chinese could never agree to a plan of repatriation of p.o.w.'s where the final power of disposal of prisoners would remain in the U.S.-led United Nations, which was but a party in the Korean conflict and where the Chinese had no representation. It is curious why Mr. Krishna Menon gracefully scated away from the long negotiated compromise formula to solve the p.o.w. problem to oblige Mr. Eden in a crucial crisis in Anglo-American Alliance. Mr. Nehru himself had indicated that the failure of the Indian resolution might mean the end of any chance of peaceful settlement. Mr. Krishna Menon's twisting of the compromise formula and pushing it through the U.N. Assembly in spite of China's disavowal of the twisted text, put the Russians and the Chinese in the wrong in the eye of 54 nations—many of whom (including the Members of the Indian Parliament) could not see through the Edenian subterfuge, to which Menon became a party by his ready acceptance of the British amendment; the Chinese and the Russians must have been exasperated at this strange turn of events after they had shown the most of moderation in the protracted negotiations on the p.o.w. issue abrogating the claim of total repatriation of p.o.w's—based on the Geneva Convention 1949. It was in this context that Vyshinsky made a provocative statement that 'the Indian resolution was designed to aggravate the conflict'.

This mishandling of the p.o.w. question by Mr. Krishna Menon, no doubt made India an idol in the eyes of the West for a time,⁵ helping to bridge a major rift in the Anglo-American relation. But this also greatly undermined Indo-Russian as well as Indo-Chinese relations. So much so, one of the main architects of Indo-Russian understanding, Dr. Radhakrishnan, made a sudden bitter criticism of the Cominform as raising world tension in March, 1953.

But later the re-opening of the armistice negotiations on the initiative of the Chinese, and the signing of the Armistice Agreement in Korea in July, 1953, on the basis of the unamended Indian Compromise formula removed once for all the causes of Indo-Soviet misunderstanding.

Stalin's death in March, 1953, provided an occasion for the assessment of the depth and width of pro-Russian feelings among the Indian people. In the Parliament as well as in the country outside, people deeply mourned and the Indian leaders paid moving tributes to the departed Russian leader as if India has lost her kith and kin and a benefactor of mankind. Sometime before the death, M. Stalin had

⁵ *The New York Times* commenting on the passage of the Indian resolution on p. o. w.'s wrote on the 8th December, 1952. "the Indians had to choose whether to amend their resolution and vote for it, refuse to make amendments or abstain. It was a hard decision, for it compelled them to step out of the role of neutrals and mediators and take an open stand against the communists."

granted interviews to Dr. Kichlew the Indian leader of the Peace Movement, and the Indian Ambassador Mr. K. P. S. Menon, and his talks showed deep interest in the affairs of India including the linguistic problem.

In 1953, there were other causes of warming up of Indo-Russian amity. The new Republican Administration in U.S.A. was committed to a policy of 'Containment Plus' which might entail hotting up of the Cold War on a new front. India's role in the Korean crisis, made many Republican leaders feel that India would be an uncertain ally in any future crisis. This led them to oppose Indian participation in the Political Conference on Korea on the flimsy pretext of her being a non-belligerent. More than that, they decided to boost Pakistan militarily with a view to neutralising the effects of Indian policy of non-alignment in the Middle-East and South-East Asia. New American intervention in Kashmir became apparent on the intransigent behaviour of Sheikh Abdullah soon after the visit of Mr. Adlai Stevenson to the state in 1953. The wave of anti-Americanism which reached a high watermark at this period, could not but result in India and Russia seeking to build up their friendly relations on a firmer foundation of trade and technical aid. In the fall of 1953 a three-year Indo-Russian Trade Pact was signed which provided for substantial expansion of Indo-Russian trade on terms highly favourable to India.

In 1954-55, the trend of events caused further resentments in India against America's 'Atomic Diplomacy' as defined by Mr. Dulles, and the attempted armed intervention in Indo-China. India had to build the ramparts of Asian peace on the basis of Asian solidarity—against American military expansionism—whose precipitate action might unleash a new war on Asian soil at any moment on any flimsy ground. Hence the invitation extended to Mr. Chou-En-Lai at Geneva and Nehru-Chou meeting in June, 1954, which became a historic meeting in defining the five principles of Peaceful Co-existence. The tie between India and China was further strengthened by Mr. Nehru's visit to China in October, 1954. Deeper Sino-Indian understanding led in its turn to closer alliance with Russia. The working of the massive Russian technical aid program in the rapid industrialisation of China, could not but impress Mr. Nehru—specially as it was devoid of any humiliating terms—unlike India's Oil Agreements with Anglo-American Oil Companies. The setting up of the S.E.A.T.O. and the signing of the Turco-Pakistani Pact were designed as a veritable Cordon Sanitaire against Indian diplomacy of Neutralism—as also against China and Russia. The challenge was met by the calling of the Afro-Asian Conference in April, 1955, at Bandung, representing more than half of

humanity. This Conference, had the blessings of Russian support, though she had to be left out for reasons of diplomacy, in spite of her being an Asian Power—like Israel. The Afro-Asian Conference, apart from promoting the cause of anti-colonialism and anti-racialism of which Russia happens to be an uncompromising advocate, helped to dispel the doubts about Red China assiduously propagated by the Western Press, and established Red China's position as a guardian of Asian Peace along with India.

In the context of all these historical happenings, the visit of the Russian leaders to India is no doubt a momentous event, with far-reaching effect in the moulding of Indian foreign policy. Russian capacity to detonate H-Bombs as well as her earnest call for banning of atomic weapons has proved at once to Indian leaders her sincerity about peace, as well as her industrial might—which was so long a monopoly of the Western Powers and was used so long by them to blackmail the backward nations to join their band waggon. Russia has proved her capacity 'to deliver the goods' which ultimately would count most in the Russo-American race for winning the allegiance of 600 million people of uncommitted nations of Asia and Africa who hold the balance of power in the world to-day. The new Russian 5-year plan with its orientation towards heavy industries is at least partially motivated by these considerations. Russian technical aid to India is being planned on a scale which may force the pace of our industrialisation with much less toils and tears, and help India attain the status of a Great Power not merely by virtue of her large population but on solid economic foundations. Russian support to India on Kashmir and Goa has been widely acclaimed in India—more so in the context of Mr. Dulles's statement on Goa as a Portugese Province.

^a Russian appreciation of Indian foreign policy also seems to be deep-laid from their forthright declaration recognising India as a Great Power. As a result of Mr. Nehru's visit to the Soviet Union, it had become clearer to the Russian leaders that India and Russia can learn a great deal from each other and derive no little benefit from co-operation. Co-operation between India and the Soviet Union now has many different sides. In addition to cultural relations, it embraces the economic sphere, and also the effort to promote peace and ease international tension. M. Bulganin in his speech in the Indian Parliament on 21 November, 1955, said, "The Soviet people highly appreciate India's contribution to the cause of peace. It was owing to the joint efforts of India, the Chinese People's Republic and the Soviet Union that a cease-fire was achieved in Korea and the fires of war extinguished in Indo-China. India actively insists that the Chinese People's Republic be accorded its

lawful seat in the United Nations. The Government of India advocates a peaceful settlement of the Taiwan question with due regard to the national interests and lawful rights of the Chinese People's Republic."

"India was one of the sponsors of, and played a distinguished role in, the first Conference of Asian and African countries. The value of this Conference for universal peace and for safeguarding the rights and national interests of the peace-loving peoples of the two continents can hardly be exaggerated."

"The Soviet Union knows and whole-heartedly approves the stand taken by the Indian Government on the question of prohibiting atomic and hydrogen weapons and reducing armaments, with a view to utilising for purposes of peaceful construction the immense resources now absorbed by the arms drive."

"The people of the Soviet Union entertain deep respect for the efforts of the Indian Government against the policy of forming aggressive military blocs, and for collective peace and the settlement of international problems by negotiation."

It is not yet the time to make a final assessment of the result of the Russian leaders' visit to India. The Western Press, however, betrayed its own bewilderment at explaining the over-enthusiasm of the vast crowds which gathered to welcome the Soviet leaders in the different cities and centres of population in India. These vast gatherings to meet the Russian leaders were at first explained away lightly. "Many just wanted a bit of fun" write the *New York Times* (18 November, 1955). The *Manchester Guardian* wrote, "Of course, the people of India love a show, and many have come to see the Russian statesmen in the same way as they would flock to see visiting Martians." When however, the people of Calcutta broke all records by organising what has been called 'History's Biggest Mass Rally' to pay homage to the Russian leaders on 30 November, 1955, it unnerved the Western Press as well as politicians as the portent of a new tidal wave of World Communism enveloping the whole of Asia. On 22 December, 1955, the much publicised American evangelist, Dr. Billy Graham, said in North Carolina on the eve of his three-week tour of India that the recent tour of India by Soviet leaders was 'a mass brain-washing scheme, unprecedented in the history of the world'. The *Times* in a sombre tone wrote on 'The New Asia' on 5 November, 1955—"The West will fail to understand Asia if it thinks Asia's attitude to Communism can be equated with its own Communism proclaims itself the liberator of the common man from want and indignity. There are many common men in Asia suffering from both. It proclaims the brotherhood of man, and that is echoed warmly in Asia. It proclaims equality which Asia

assiduously demands. Its message is all-embracing, and for those who feel the old traditions sundered and the legacies of imperialism, valued and respected though they may be, insufficient to pilot them in the modern world, Communism appears to offer a key. Asia takes the broad view because it can take no other” *The Times* wrote further “ Without a developed, stable and responsible capitalist class in Asia, the public sector—to borrow the Indian term—meets with no serious conflict. In India, as in China, a ‘ socialist pattern ’ flying a nationalist flag wins the day. Nor does the Communist threat to European cultural values seem so great to those civilizations of the Eurasian landmass that see their disintegration as a product of European aggression.”

A more objective assessment of the effect of the Russian leaders’ visit to India is given by Mr. K. M. Pannikkar ⁶ “ The first outcome of these closer contacts is that we have taken a further step forward from Co-existence to Co-operation A second result is the clear affirmation of Soviet Russia’s position as an Asian Power The third result is the frank acceptance of not merely the possibility but the necessity of friendship and co-operation between Communist and non-Communist countries

“ the closer association between India and the Soviet Union which the visits have established had helped to clarify the world situation. India remains, as before, firmly attached to the democratic ways and to the political, social and economic structure, which she has chosen for herself, in the same way as the Soviet Union firmly adheres to her own system.

“ Equally India remains wedded to her policy of neutrality, of refusal to belong to one camp or another, but working for peace in the world. But both the Soviet Republic and India, while firmly adhering to their own ways of life, have found it possible to enlarge the area of co-operation and to work out, on the basis of Pancha Shila, a system of relationship which should lead to great mutual benefit and to the strengthening of the cause of peace in Asia.”

⁶ *The Blitz*, 17th December, 1955.

DENOTATION AND IMPLICATION

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Before we take up the examination of the primary significance of a word, it is better to enquire into the nature of the other meanings. To begin with there is "lakṣaṇā". On Pāṇini's Sūtra, 4.1.48, Patanjali considers three examples. The first is "Mancā hasanti" which literally means, "the couches are laughing". The idea of laughing is inconsistent with that of a couch and we therefore make the word 'couch' to mean 'the people on the couch'. This is a new meaning arising from the context, following the demands of propriety. The second example is "Gaṅgāyām ghoṣaḥ" or "a hamlet on the Ganges", which must mean only "a hamlet on the banks of the Ganges". The third one is "yaṣṭiḥ pravesaya" or "let the sticks come in", which really means, "let the men with sticks in their hands come in". In these examples we have words that bear a relation to their meanings, but these meanings are not directly derived from the corresponding words. There is a conventional or technical usage controlling this relation, and giving rise to a secondary or indirect meaning. Thus a word is indirectly related to an object, because of its direct relation with something else; and this something else is connected with the object in question. Hence the expression "On the Ganges" is related to "on the banks of the Ganges", and this related meaning is said to be the meaning intended. In every such case, only the previously known can be thus related. The wholly unknown cannot be related thus.

But consider the statements, 'That thou art'. The word 'that' denotes omniscience and other characteristics of the Absolute, while the 'thou' denotes the finite individual. The identity between the two is effected through 'lakṣaṇā' for the 'thou' is related to "Being."¹ But the statement can be interpreted easily without taking recourse to the related content. The 'that' and the 'thou' are cognised through the primary denotative power of the words. We also cognise the relation between the 'Being' of the two, through the same power. For instance, in 'The pot is non-eternal', the word 'pot' considered as a universal finds its predicate incompatible with itself. But we do effect

¹ "Aikya siddhy artham svarūpe lakṣaṇeti sāmpradāyikāḥ" (Vedānta Paribhāṣā, 2751)

a significant syntactical relation between the non-eternality and the particular pot. In other words, where the being of a thing is involved, there the primary denotation need not be given up. But where a qualification is applied to one of the terms, there we have to discard a part of the primary meaning.¹ Thus when we say 'the pot is eternal', the individual pot as such is not eternal; and in order to make the predicate compatible with the subject we take up 'lakṣaṇā'.² On the other hand, in 'That thou art' we need not take recourse to 'lakṣaṇā' for, the primary denotations of the 'that' and 'thou' are not modified in the equation of identity. Hence when the substantive is involved we have to accept its denotation as it is. But when a qualification is referred to we may take recourse to 'lakṣaṇā' provided it can make the syntactical relation compatible.³

If the predicate is to hold good of the subject, not of the subject as qualified in a specific way, nor of the qualification, then the predication is true of the bare subject its primary sense. For instance the word 'pot' signifies also 'potness' which is its qualification. If the pot is non-eternal, this non-eternality agrees with the particular pot only and the qualification 'potness' is irrelevant to the context. For, by pot we primarily mean the particular pot. But in the statement, 'the pot is eternal', we have the particular pot as the meaning of the word 'pot'; and the predicate here compels us to take recourse to 'lakṣaṇā' and thus interpret the word 'pot' to mean 'potness'. 'Potness', therefore, is part of the meaning of 'pot' and constitutes its qualification. If this qualification does not as a subject enter into a relation with a predicate, then we should accept the primary meaning as final, and this primary meaning has everything to do with the particulars only.

Here we have an example of a word capable of meaning two things, and both the meanings are imbedded in the same word. The question as to the relative importance of these two meanings depends on the context which here is its relation to a given predicate. But when one meaning thus comes out upper-

¹ "Yatra padārthaika deśasya viśeṣaṇatayā upasthitih tatraiva svāntaryeṇa upasthitaye lakṣaṇābhy upagamah" (*Ibid* p. 276).

"Yathā 'nityo ghaṭah' ity atra ghaṭa padāt ghaṭatvasya śaktyā svāntaryeṇa upasthityā tādṛśopasthity artham ghaṭa padasya ghaṭatve lakṣaṇa" (*Ibid*).

³ Eṃam eva 'tattvam asi' ity ādi vākye 'pi na lakṣaṇā; śaktyā svāntaryeṇa upasthityaḥ tat tvam padārthāyor abhedānvaye bādhakābhāvāt, anyathā 'gehe ghaṭah', 'ghaṭe rūpam', 'ghaṭam anaya' ity, ādau ghaṭatva ghaṭavāder abhinatānvaya bodhāyogyataya tatrāpi ghaṭādi padānān viśeṣyamātrapratvam lakṣaṇayaiva syāt" (*Ibid*).

most as the proper significance of the word, the other meaning is not ignored. It also enters into our understanding; and when we analyse the import of the sentence it too comes out. And when we accept the 'lakṣaṇika' meaning in 'the pot is eternal', we are not accepting a mere associated meaning. We are taking that meaning which is vitally connected or united with the primary meaning of the word. Thus in 'lakṣaṇā' when we infer one meaning from another, we accept a close internal relation between the two things.

The function of a word, says Mukula, is to denote its primary meaning or 'mukhyāśakti'; while the power to offer 'lakṣaṇārtha' is a function of the primary meaning. It is 'abhidheya sāmārthyākṣipta'. It arises from the primary meaning, for the primary meaning fails to explain the given expression; and hence we resort to some other related significance.

"Śabda vyāpārato yasya pratītiḥ tasya mukhyatā
arthāvaseyasya punaḥ lakṣyamāṇatvam Ucyate."

The word as such has only one function and that is fulfilled soon after it expresses its sense. But this meaning can give rise to any other meaning which meaning is called 'lakṣaṇārtha'. All the suggestion that a word presents is only a consequence of this 'lakṣaṇā'. And when the 'lakṣaṇārtha' is arrived at, the primary meaning has fulfilled its capacity as in such expressions like 'the hamlet on the Ganges.' ² It is because of this we have to bear in mind the relations of the speaker, the sentence, and the expressed meaning, to one another. In the light of the relations subsisting amongst these three, and when the expressed primary meaning is taken note of, we have to find out whether we have to resort to 'lakṣaṇā.' ³ And hence it is said, "śakya sambandhe lakṣaṇā." ⁴

Then again consider the statements 'The pot is eternal', and 'the pot is non-eternal'. In their own respective contexts both these statements are valid. Though individual pots are destroyed, we still speak of the universal 'pot' as beyond destruction. Hence in the first sentence, the predicate determines the meaning of the word 'pot' as referring to the universal; while in the latter the same word means and refers to a particular because of the predicate. The word 'pot' can mean the particular pot and also the universal potness; and

¹ Abhidhāyitī mātrkā, v. 3.

² Ibid, p. 7. "Arthāntara siddhy arthatvena svārtha samarpanam tatralakṣaṇam".

³ Ibid, p. 10. "Vaktuḥ vākyasya vācyasya rūpa bhedaavadhāraṇāt lakṣaṇā ṣaṭ prakāraṣā vivektavyā maṇiṣibhiḥ".

⁴ Rasa Gangādhara, p. 185.

the meaning that is intended depends upon the context. In the first sentence we take the idea of potness in the pot to be the meaning required. Thus 'lakṣaṇā' refers to a known object, involves an inseparable relation between the expressed and the implied, and is determined by the context. 'Lakṣaṇā' is defined as:

“Vācyaśārthasya vākyārthe sambandhānupapattitah
Tat sambandha vaśa prāptasyānvayaḥ lakṣaṇocyate.”¹

According to this definition we cannot directly relate the word 'Ganges', in the example 'the hamlet on the Ganges', to the word 'hamlet'. The 'vācyaśārtha' or the primary meaning of the words has no internal unity or harmony in the form of the sentence. But this definition restricts the necessity of taking up 'lakṣaṇā' only to those cases where we have 'vākyārtha sambandhānupapatti'. For in a sentence like 'Eat poison' we have a consistent meaning, and yet we reject it in favour of some other meaning which alone is correct. Hence 'lakṣaṇā' is defined in a different way by the same author thus:

“Mānāntara virodhe tu mukhyaśārthasya parigrahe
mukhyārthenāvinābhūte pratitir lakṣaṇocyate”.

When we find that the primary meaning is contrary to the meaning we arrive at otherwise, we take recourse to 'lakṣaṇā'. But this 'lakṣyaśārtha', we have seen, should be invariably related to the primary or principal sense, and only when the import of the sentence is not intelligible we have to look for 'lakṣaṇā'.

To take an example:

“Suvarṇa puṣpām pṛthivīm cinvanti puruṣās trayah
Sūraś ca, kṛtavidyaś ca, yo 'bhiḥjānāti sevitur”.

It means: 'Three men are decorating the earth which is a golden flower: these are a hero, a scholar, and one who well knows how to serve'. The words here through their meanings form a consistent syntactical unit, but the sentence as a whole makes no significant sense. The absence of a significant import makes the sentence lose its purpose or validity. As such we give up the apparently apprehended meaning; and we find that the sentence indicates that the 'sūra' and others are responsible for the prosperity of the country.² In other words, the primary denotation of

¹ Sāstra Dipikā.

² 'Padārthanām avaya sambhave' pi nisprayvjane tātparyā-sambhavaṇa vākya, prāmāṇyānupapattih, pratiyamāna vākyārtham hitvā, sūraditvam sampade better iti dhva, ninā sūcyate (Citsukh, p. 153).

the sentence is incompatible with the meaning we apprehend. Because of this incompatibility we accept 'lakṣaṇā'¹. Thus a fourth characteristic of 'lakṣaṇā' arises from the incompatibility of the expressed sense. This incompatibility originates from the failure of the expressed sense to agree with the facts.

II

The Mimāṃsakas have realised logical difficulties in the nature of words, and in order to make the words form a sentence and in order to enable the sentence to yield a coherent meaning they had to adopt 'lakṣaṇā'. In the Bhāṭṭa version of the 'abhihitānvaya vāda' or the view that stresses the relation of the signified, the primary meaning of the word functions as a necessary intermediary in the fulfilment of the meaning of the sentence. The word has 'śakti', and the meaning of the sentence does not form part of the 'śakti' of the word. Hence we arrive at the meaning of a sentence through 'lakṣaṇā' which is related to that which is made known indirectly by the 'śakyārtha'. And in the Prābhākara version of the 'anvitābbhidhana vāda' the 'śakti' or capacity is entrusted to the meaning of the word; in which case problems arise in relating one word to another, and in relating one meaning to another. The part played by 'lakṣaṇā' in these two schools of thought is of serious consequence when we consider the import of a sentence. For the present we should recognise the absolute sway of 'lakṣaṇā'.

This 'lakṣaṇā' exists not only in words but also in sentences. Thus in the sentence 'the hamlet on the deep river', we combine the words 'deep' and 'river', and the 'bank' is related not to the simple 'river' but to the 'deep river'². Each word has its own 'śakti', and there arises some meaning from the relation of one word to another. The same 'śakti' that is operative in a single word can be operative also in a group of words. In a sentence like 'so' 'rodīt yad arodīt tat rudrasya rudratvam'³, we are told something of the howling of Rudra. Here the meaning is complete; but we derive from the context the meaning that silver is not to be given as sacrificial 'dakṣiṇā', and silver is associated with the tears of Rudra. Here

¹ See Kāvya Prakāśa, p. 40.

² "Lakṣaṇā ca na pada mātra vṛttiḥ, kim tu vākya vṛttiḥ api, yathā 'gambhīrāyām nadyām ghosah' ity atra 'gambhīrāyām, 'nadyām', iti pada dvaya samudāyasya tire lakṣaṇā". (Vedānta Paribhāṣā, pp. 278 279).

³ Taittirīya Saṁhitā, 1 5 1.

'lakṣaṇārtha' is derived not from one word, but from the whole sentence as such. Otherwise all words save one would be futile.¹ 'Lakṣaṇā', therefore, operates both in a word and in a sentence, though Mammata accepts it only in the sentence.²

III

"Lakṣaṇā" or implication is classified into three groups namely, "jaballakṣaṇā", "ajahallakṣaṇā", and "jabad ajahallakṣaṇā". In the first group the primary meaning is given up completely, and we have exclusive implication. When a son is going to dine in the house of an enemy, the father advises him 'eat poison'. The father does not wish him to 'eat poison', but only wants him to avoid the dinner, since dining in the house of an enemy amounts to taking poison, or makes poison look better and more preferable. In the second group, the primary meaning co-exists with the implied meaning, and the implication is not exclusive. When we speak of 'the white pot', the word 'white' denotes the quality and by association also denotes the substance possessing that quality. Thus in these two cases of implication we notice a logical sequence of thought based upon an inseparable connection between the expressed and the implied. Then there is the third group where the primary meaning is only partially retained. In the expression, 'This is that Devadatta' we have the 'this' and the 'that', each having its own qualification. But we indentify the two, since they have the same substrate which alone is taken to be the purport. We do not merely abandon the expressed sense, but we do accept the non-expressed; and both these are necessitated by the context. We abstract and fill out what remains. We supplement and add to the fulfilment of the purport. Thus in a sentence like, 'Let the curds be protected from the crows', the word 'crows' applies both to the crow and to what is not a crow.³

This feature of the import of a word consists in a relation of the 'Lakṣyārtha' to the primary meaning or 'śakyārtha'. A word has a śākti' and a 'śakyārtha' allied to this. When we have a group of words, as in a compound or a sentence, the meaning of this group of words is not the 'śakyārtha' of the words; but the 'śakyārtha' or

¹ See Abhidhā vṛtti mātrkā, P. 14.

² Śabdavyāpāravicāra. P. 8 : "Padeṣu varṇa vad vākyesu hi padānām anarbhakatvam. Tatasā Ca lakṣaṇā nāsty eva".

³ See Vedānta Paribhāṣā, Pp. 274, 278.

the primary meanings of the words are integral to the sentence as a whole. Similarly, the primary sense of a word is comprehended in and contained by the implied sense. It is not merely similarity or likeness that relates one object or idea to another. If two things are similar, it means that there are two distinct things; and they also differ from one another. A relation arises not because of mere similarity but because of some principle of connection or relation.¹ This principle of connection is so deep and intense that we superimpose the one on the another because of their similarity. Lakṣaṇā therefore involves many principles at work. As Bhartṛmītra observed,

“Abhidheyena sambandhāt, sādṛśyāt, samavāyataḥ,
Vaiparītyāt, kriyā yogah, lakṣaṇā pancadhāmataḥ”.

The ‘abhidheya’ relation holds good between two words where one word is based on the other without involving any inherent relation. Thus ‘dvirepha’ means a ‘bhramara’ because the latter word contains two ‘r’s. The ‘sādṛśya’ relation is one of similarity as in the case of an analogy. The ‘samavāya’ or inherent relation makes us remember one thing if the other member is cognised. This relation can manifest itself either as invariable closeness, or as coexistence, or as causal. The ‘vaiparītya’ relation is one based on difference, and the ‘kriyāyoga’ relation is that where the substantive undergoes a transformation because of an action.² In the relations of similarity and difference, we reject the primary expressed sense. The presence or absence of the intention determines the sense in ‘abhidheya’ and inherent relations respectively. And in the relation brought about by the ‘kriyāyoga’ we accept the capacity of the word.³ All these can be reduced into two subdivisions. On the one hand we have ‘jahat’, ‘ajahat’, and ‘jahadaajahat’ where we arrive at the implied through some relation of conjunction. On the other hand we have similarity working through and giving us ‘sāropa’ and ‘sādhyavasāya’.

If a word can suggest a meaning which is unconnected with the primary expressed sense, we shall be going against the conclusions arrived at in the previous chapters. The word and its meaning are the integral aspects of the same whole; and if there is no relation

¹ Vyaktiviveka, P. 113 : “Na hi tat sādṛśyam evaikam tattvāropa nibandhanam iṣyate; kim tarhi ? Tat sambandhadir api.”

² Abhidhāvṛtti mātṛkā, Pp. 17-18.

³ Sādṛśye vaiparītyeca vācyaśyātī tiraskriyā vivaksā cāvivaksā ca sambandha-samavāyā upādāne vivaksātra lakṣaṇe tv avivakṣaṇam Tiraskriyā -kriyāyoge kvacit tad viparītatā” (Ibid, P. 19).

between the expressed and the suggested meanings, we have to deny the unity of a word and its meaning¹ And this denial is contrary to facts. Hence it is said :

“Abhidheyāvinābhūta pratītir lakṣaṇocyate

Lakṣyamāṇa guṇair yogād vṛtter iṣṭā tu gaṇatā.”²

That the relation between the expressed sense and the implied sense (lakṣyārtha) is inherent or inseparable (avinābhūta) is admitted by Kūmarila. But Mammata tells us that by the word ‘avinābhūta’ we should only mean a mere ‘sambandha’ or association; for when we say that ‘the couches are crying’, what relation is there between the couches and the persons on the couches ?³ And in the absence of an inseparable relation, there should be no implied sense here. But Mammata misses the point here, since the predicate ‘crying’ is invariably related to live beings, the word ‘couches’ implies the persons through the predicate.

IV

The ‘lakṣyārtha’ which comes to us from the word is accepted always as the most important meaning since it fits into the context. In a sentence like ‘That thou art’ we cognise and sustain the apposition between ‘that’ and ‘thou’. This is not the non-principal meaning, since it is not a sense other than what is cognised. Further in the identity of the ‘thou’ and the ‘that’ a part of the primary meaning is still retained; whence it is not a meaning other than the ‘śakyārtha’ or the primary expressed meaning. ‘Lakṣaṇā’ comes here only in the syntactical relation of the substrate to the exclusion of the delimiting qualifications.⁴ The final meaning that results thus stands on its own merits and does not serve as a means for something else.⁵ Hence it is not the ‘mukhyārtha bādha’ that

¹ Vyakti Viveka, P. 116 : “Śabdasya tatra vyāpārābhāvāt, Vyāpārābhāvas ca sambandhābhāvāt”.

² Kumārila : Śloka-vārtika.

³ Kāvya-prakāśa, P. 50.

⁴ Madhusūdana Sarasvatī : “Viśeṣaṇa bādheṇa viśeṣya Mātrānvayaḥ”.
On the argument of this paragraph see Advaita Siddhi, Pp. 34-35.

⁵ “Anyārtha tātparyakatvāc cāmukhyatvam, na lākṣaṇikatva mātram”. *Ibid*, (P. 35)

compels us to take resort to 'lakṣaṇā' as Viśvanātha¹ and others argue. We take recourse to 'lakṣaṇā' when the import is not intelligible in terms of the expressed sense. Thus in a sentence like, 'Let the curds be protected from the crows', we have the 'anvaya' or an intelligible syntactical relation. But the import or 'tātparya' is not complete. And in the expression, 'the hamlet on the Ganges' we have the 'anvaya' but no sensible import at all.² As such through 'lakṣaṇā' we arrive at the principal meaning, and the emergence of this principal meaning is determined by the needs of an intelligible 'tātparya' or import, and not by the needs of 'anvaya' or syntactical relation'.

V

'Lakṣaṇā' gives rise to a meaning which is implied by the words in question ; and this implied sense is related to the expressed sense. When there is a direct relation to the expressed sense we have bare implication (kevala lakṣaṇā) as in the expression 'the hamlet on the Ganges. The bank is directly related to the stream, and this relation interprets the preposition 'on' to mean 'on the banks of'. But when there is an indirect relation to the expressed sense, there arises a new sense out of the first implication. Thus we have the word 'dvirepha' meaning literally that which has the letter 'ra' repeated twice in one of its appellations ; and such a word is 'bhramara'. Here 'dvirepha' implies 'bhramara' which in its turn means the bee. Similarly in the expression 'the pupil is a lion', we cognise the ferocity in the pupil ; and this ferocity is implied by the word 'lion' here because the object 'lion' has it. Here we notice that the figurative expression gives rise to the new meaning. This is known as 'laksita lakṣaṇā'³ and also as 'gaṇa vṛtti'.

Some thinkers have attempted to interpret the import of poetry in terms of this implication. But only very few cases are susceptible of an interpretation from this standpoint. When we adopt 'lakṣaṇā' in 'the hamlet on the Ganges' we reject the waters of the Ganges since they are of no use here. But when we arrive at the idea

¹ "Mukhyārtha bādhe tad yukto yayānyo 'rthaḥ pratiyate rūdheḥ prayojanād vāsau lakṣaṇā saktir arpitā" (Sāhitya Darpaṇa, P. 34).

² Vedānta Paribhāṣā, P. 278. "Lakṣaṇā bijam tu tātparyānupapattir eva, na tu anvayānupapattiḥ. 'kā kebhyo dadhi rakṣyatām' ity atrānvayānupapatty abhāvāt, 'gangāyām ghoṣaḥ' ity ādau tātparyānupapatter api sambhavāt" cf. Rasa Gaṅgādhara, Pp. 185-186.

³ Vedānta Paribhāṣā, Pp. 273-274.

of sanctity from the idea of the banks of the Ganges, we are not rejecting the idea of the bank. In other words it is not through 'lakṣaṇā' which works through negation that we arrive at the final import. Hence Abhinavagupta rejects this 'lakṣita lakṣaṇā' as beneath contempt.¹ However this variety presents an important aspect of implication which is at the root of all implications, viz. an implication is capable of giving rise to a new conclusion, for it works in a closely interrelated system of Reality.

VI

Some words are seen to lose their primary sense wholly or partially. Thus "kuśala" originally meant 'one who chops grass', and "praviṇa" meant 'one skilful on the lyre.' Both denote how the idea of skill. Likewise "udāra" now means 'noble', and "nistriṃśa" means 'cruel'.² The original meaning is comprehended in the wider meaning which these words have acquired. These are "vācaka śabdāḥ" that have acquired certain new meanings due to changes in the environment. As a result they lose their etymological meanings and even run contrary to them.³ Further etymology will convert many words and force them to yield 'lakṣaṇārtha.' Thus if we were to rely on etymology, the word 'gauḥ' will mean primarily 'a moving being' and secondarily 'a cow'. And in a sentence like "gauḥ śete", etymology will find the idea of moving being at rest.

"vyutpatti labhyārthasya mukhyārthatve 'gauḥ śete' ity
atrāpi lakṣaṇā syāt"⁴

But since we do not take recourse to 'lakṣaṇā' here we have to admit that the meanings of words are governed by the ways in which they are employed. And it is the way in which a word is used that will explain the function of the word and its consequent meaning.

That this is a sound canon is apparent when we remember that for the Buddhist logicians the import of a word, though positive in appearance, is negative by "lakṣaṇā"; for this negative meaning which is secondary fixes, the meaning precisely. This view comes

¹ Locana, P. 61: "Ata eva yat kena cil lakṣita lakṣaṇeti nāma kṛtam tad vyaśana mātram".

² cf. Durga on Nirukta, II. 1.

³ Sāhitya Darpaṇa, II. "Anyadd hi śabdānām vyutpatti nimittam, anyac ca pravṛtti nimittam".

⁴ Ibid.

closer to "arthāpatti," where from the statement "pīno devadattaḥ, dīva na bhunkte", we arrive at the meaning that he dines by night. Here we find that the same sentence can and does give rise to a positive and a negative meaning :

"Bāhyārthādhyaavasāyena pravṛttam prati bimbakam
utpādayati yeneyam tenāhety apadiśyate.

Tasya ca pratibimbasya gatāv evānugamyate

sāmarthyād anya viśleso

divābhajana vākyaāder ivāsyāpi phaladvayam

sākṣāt sāmarthyate yasmān nānvāyo vyatirekavān"¹.

VII

'Arthāpatti' is said to be one way of explaining the meaning of a word or of a sentence. This 'arthāpatti' is one of the valid means of knowledge accepted by some thinkers, and it can best be rendered as 'implication'. Its essential feature lies in postulating or presuming something to make something else intelligible and compatible.² This postulated something must be closely connected with the thing we cognise, with the thing we are to explain ; for, then alone can it fit into the ellipsis.

Consider the sentences, 'close it' and 'it has rained' ; Consider the verbs 'rise' and 'set'. In the first sentence we take the 'it' to stand for the door or window or book or some other thing. In the second we mean the 'clouds' by the word 'it'. With the verbs we associate the moon or sun. How are we able to complete these sentences or words in this way? We complete them because the 'ākāṅkṣā' or the mutual expectancy of the words demands some such filling up of the gaps. Do we follow any inferential principle or not in such a filling up? This is more or less similar to the 'adhyāhāra' principle in sanskrit grammar which helps in understanding the sense.³ That is, we presume the necessity of a certain thing to prove something else with which we are conversant.

How is this presumption related to the expressed words ? The Prābhākara Mīmāṃsaka argues that the 'abhidhā' or the primary denotative function of the word has a capacity which embraces even the understood sense ; for it can fly like an arrow to the farthest regions. This principle is accepted because in certain Vedic injunctions one has to supply the ellipsis ; and

¹ Tattvasamgraha, slokas 1017 to 1020.

² Vedānta Paribhāṣa, P. 309.

³ cf. Vāmana's Kāvya-lankāra sūtra vṛtti, 1.2.6.

the supplied words too are to be accepted as vedic so that they may become authoritative and authentic.' But there is no evidence to prove that this capacity is one and unique since many different objects appear to be comprehended in it. Such a capacity cannot be established, because the words can express only their own meanings, and also because the final import of the sentence too can express that which is embodied in it. Nothing that is already not contained in the word or in the sentence cannot be expressed by either. Even in a sentence like 'kakebhye dadhirakṣyatām', we adopt the 'tātparya' because the sentence is grammatically complete without a self-complete sense.

How do we fill the ellipsis? We hear the word 'rises' and from the cognition of this word we supply the word 'sun'. We hear the sentence 'close it' and from the cognition of the meaning in the context we presume that the door is meant. Similarly in an apparently affirmative statement we might apprehend a negation; and in a negative sentence we might perceive an affirmation. Such a state we find in the command, 'eat poison'. This is the spirit of Bhāmaha's figure of speech called 'ākṣepa',² which according to Ruyyaka also consists only in an apparent negation.³ In all such cases we cognise a thing and are unable to explain it with reference to the known; we have therefore to presume something unknown. Such a process is characterised by Bhoja to be a case of 'arthāpatti'.⁴ Consequently all such cases where we take recourse to suggestion become explicable in terms of 'arthāpatti'. And Abhinavagupta observes:—

"Ātaeva samāptāyām eva abhidhāyām sahrdayair evā sa dvitiye 'rtho 'pṛthag prayatnenaivagan nujah...Etac ca śarvedāharapeṣvanusartaryam. 'Pīnaścaitre divānātti' ity atra abhidhai va aparyavasiteti saiva svārtha nirvāhāya arthāntaram śabdāntaram vā ākarṣatīty anumānasya, śrutārthāpatter vā, tārkaika mīmāṃsakay cā na dhvani prasangaḥ"⁵

Thus while the Naiyāyikas take suggestion to be a case of mere inference, the Mimāṃsakas consider it to be one of implication. And the problem therefore leads us to an examination of inference, implication, and lakṣaṇā with reference to suggestion.

¹ Locana p. 64 : "Yo 'py anvitābhidhānavādī 'yat paraḥ śabdah sa śabdārthaḥ' iti bṛdayā gṛhīte śarvād abhidhāvāpārameva dīrgha dīrgham icchati....." cf. Vyaktiviveka, pp. 122-124.

² Kāvyalankāra, II. 68 : "Pratigedha iṣṭasya yo viśeṣābhidhitayā.

³ Alankāra Sarvasva, p. 144 : "Ukta vakya māṇayet prākaraṇikayor viśeṣa pratipatty artham niṣedhabhāṣa ākṣepat.

⁴ Sarasvatī kaṇṭhābharana, III. 52 : "Pratyakṣādi pratīto" rtho yas tatbānopapadyate arthāntaram ca gamayaty arthāpattim vadanti tām.

⁵ Locana, pp. 273-274.

VIII

Jayanta as a true logician rejects 'dhvani' or suggestion.¹ Mahimabhaṭṭa in his "Vyaktiviveka explains the apprehension of the suggested significance as inferential :—

"Vācyastad anumito vāyatrārtho 'rthāntaram prakāśayati sambandhataḥ kutaścīt sā kāvyānumitir ity uktā." ²

A word expresses a meaning, and it may also be 'made to suggest another. The primary meaning is the basis of, or the means for, the new meaning. In other words these two meanings are only causally related to one another in an inseparable manner. For instance we infer the existence of fire from our perception of the smoke, because we accept the invariable concomitance between the two. Here the smoke is only a symptom or feature of the fire, for it leads us to a knowledge of its related term. Likewise the primary meaning functions like the smoke, and leads us to the suggested meaning which is comparable to the fire in the inference.³ The primary meaning is neither ignored, nor suppressed, nor forgotten; for without it there can be no suggestion whatsoever.

A word expresses its own meaning. How can it convey by itself a second meaning too? ⁴ (1) A lamp illumines the darkness and makes us perceive things clearly. If the illumination is removed there can be no clear perception in the dark room. Similarly a word makes us know of a thing which it expresses. If this power is removed, we cannot derive any other meaning from the word.

Further a pot is used as a means for fetching and storing water. But we can never speak of the pot as only a quality or attribute of the water. In the same way the word is the means through which we arrive at the sense. But the meaning is neither a quality nor an attribute of the word. In other words a thing may be a means and yet remain more important than the thing to which it is said to lead.⁵ Hence we cannot arbitrarily decide that one meaning is more important than the other.

¹ Nyāyamanjarī, pp. 48-49.

² Vyaktiviveka, p. 105.

³ Vyakti viveka, pp. 9-10. "Arthasya tāvad upasarjanī kṛtātmatvam anupādeyam eva. Tasyārthāntara pratītya artham upāttasya tad vyabhicārābhāvāt. Na hy agnyādi siddham dhūmādir upādiyamāno guṇatām ativartate."

⁴ "Tasya svārthābhidhānam antareṇa vyāpārāntarānupapattir upapādayiṣyamānatrāt" (*Ibid*, pp. 13-14).

⁵ "Yo hi yad aṣṭam upādiyate, nāntam evopasarjanī karotīti yuktam vaktum; yaheḍakādy upādānārtham upāttagheḍadis tathevedakādi" (*Ibid*, pp. 15-16).

'Abhidhā' or the capacity to express something is the principle of relation between a word and its meaning. And whenever a poet conceives of an image or of a figure of speech, it is always in terms of this 'abhidhā'. But if the image or the figures are to beautify or poetise a suggested meaning, the poet has to accomplish the art of jugglery; for the suggested sense being derived from the expressed sense, it is not the poet who can beautify it but the reader or listener. And thus the art of poetising or decorating will pass from the poet to the non-poet¹. Hence we may infer a suggestion from the primary expressed sense, never a suggestion from the sound itself. And the moment we realise that we cannot have a suggestion from the sound itself, we will understand that the apprehension of a suggested meaning is never immediate but only inferential. And in poetry as in speech it is the word that is more important, and by the word we mean something definite.

A word fulfils its purpose the moment it expresses its meaning; and if we were to derive a suggested sense too we have to admit of many functions or capacities for the same word.² This will lead us to a still more difficult problem of finding a logical relation between these various capacities. But in reality we apprehend a meaning immediately after hearing a word and this is its principal or direct or expressed meaning. Any other meaning which is mediated by this meaning is only inferential³, for one meaning is mediated by or caused by another meaning⁴. Hence the expressed and the suggested meanings are not apprehended simultaneously at the same time, but in succession. The former, says Ānandavardhana himself, is the cause of the latter.⁵ And whenever we admit of a causal relation, though this relation may be based on the idea of succession, we are recognising some law of connection between the two.

¹ "Alankārāṇām cābhidhātmatvam upagatam teṣām bhaṅgi bhaṅiti bhedāt" (*Ibid*, p. 19).

cf "Alankārāntarasyāpi pratitau yatra bhāṣate Tat paratvam na vācyasya nāsau mārgo dhvaner mataḥ"

(*Dhvanyaloka*, II, 27)

² "Na cāśya svārthābhidhāna mātra paryavaśita sāmānyasya vyāpārāntaram upapadyate. yenāyam arthāntaram avagamayet, tad apekṣam copasārjanikṛtārthatvam iyāt"

(*Ibid*, p. 21)

³ "Śrutimatreṇa yatrāśya tādarthyaṃ avaśisyate
Tat mukhyam artham manyante gaṇam yatoopapāditaṃ"

(*Ibid*, p. 39)

⁴ "Tatrāpi kāryakāraṇa mūlasya gamya gamaka bhāvasyopagamāt"

(*Ibid*, p. 57).

⁵ *Dhvanyaloka*, : "Tasmād abhidhānābhidheya pratityor iva vācyā vyangya pratityor nimitta nimitti bhāvād niyamabhāvi kramah".

The suggested meaning is said to be manifested by the word. A manifestation can appear in one of three possible ways, when the manifested sense is potentially existent. One way of manifestation is through evolution, as in the curd which is an evolute of milk. A second way lies in the removal of obstacles, as when an object in a dark room is manifested by light. And Ānandavardhana tells us :

“Svarūpam prakāśayanneva parārthābhabhāsano
vyanjaka ity ucyate, yathā pradīpo ghaṭādeḥ ” ¹

The light reveals itself and the objects, and the suggested sense is likened to the light while the objects are compared to the expressed sense. When we have cognised the indissoluble relation of a thing to another, we remember it so well that with the appearance of that thing we infer the presence of the other. Thus the appearance of smoke manifests the presence of the already-existing fire. This is the third way of manifestation. And if the manifested has no prior existence of any sort, it can be manifest only in one way, as the rainbow from the rays of the sun.

None of these possible explanations can explain the manifestation of the suggested sense. In the first example we cognise the milk and then the curd whereas we cognise the word and not its suggestion. Further when we cognise the curd, the milk has ceased to exist independently. In every causal relation we thus find that though they are metaphysically the same, yet they are not merely distinct; for one demands of the other not to exist in its presence. In the second example we have the co-existence of light and the object it makes known. Both these are known at the same time. But we do not cognise the expressed and the suggested at the same moment, ² for they come one after the other like the perception of smoke leading to the inference of the fire. And since the non-existence of fire can never be inferred from the perception of the smoke, the fourth example falls to the ground.

The illustration of the light does not help matters. When we say that light reveals the objects, we distinguish the light from the objects. The light has no internal relation with the objects at all. If such an absence of an internal relation between the suggested and

¹ *Ibid.* .

Vyaktiviveka, p. 78 : “ Sate ‘bhiviyakter ādyayor arthayer lakṣaṇam na tat pratiyāmāṇeṣvekam api samspraṣṭum kṣamate; tasya dadhyāderivendriyaviṣayabhāvāpatti prasangād; ghaṭāderiva vāyārtha sahabhāvenedantā pratiter asambhavāt ”.

primary meanings is a fact, then we cannot arrive at a suggested sense from the primary. Moreover, we should first be aware of the suggested sense and then of the primary sense, and this is contrary to experience. Another consequence of the illustration will be that a word functions suggestively and that it is through this suggestion that we arrive at other meanings. In such a case the other meanings cannot be logically related to the word ; and if such a suggestion is apprehended first, we need not call it suggestion at all. This is rather suicidal to the theory of suggestion, and the example is rather unhappily chosen.

We derive a meaning from the word, and this is its primary meaning. From this meaning we get at a new meaning called suggestion. This getting at, says Mahima, is always inferential ;¹ and if we reject the inferential process we shall be led into an absurdity. Consider the example from Kumāra Sambhava where Pārvatī is described while the seven sages were giving the proposal of marriage to her father :

“ Evam vādinidevarṣau pārśve pītur adhomukhī
lilā kamala patrāniganayāmāsa pārvatī ”.²

By stating that she is looking to the ground the poet suggests to us that she is feeling shy at the proposal. And this feeling in turn suggests that she is in love with Śiva. Now if it is only the expressed sense that can suggest, how is it that the suggested sense here has suggested something else?³ But if, on the other hand, we take it inferentially, we shall have no difficulty in explaining it at all. Looking at the ground is the middle term giving rise to a knowledge of her shyness. From this shyness we can deduce the possible consequences. That is, we arrive at her shyness inductively, and come to understand her love for Śiva purely deductively. It is the same inferential process viewed from two different angles.

IX

But inference is based on the relation of the ‘hetu’ to the ‘sādhya’. This relation can be one of ‘tādātmya’ or identity in difference ; or it can be a causal relation. Both these relations it is

¹ *Ibid.*, p. 78. “ Na hy arthād arthāntara pratītir anumānam antareṇārtham vyāpadyate ”.

² Kumāra Sambhava, VI.

³ Vyakti viveka, p. 82.

argued, are inadmissible in the relation between the expressed and the suggested. Thus in cases where an apparent command suggests a prohibition, or where an apparent prohibition suggests an injunction, we cannot relate the two terms of identity in difference. For as Jayavatha observes that existence and non-existence cannot have a positive relation. In the same way they cannot have even a causal relation.¹ It may be replied; how can we draw a 'vidhi' from a 'niṣedha' unless there is close relation between the two?

Without the 'vyāpti' or invariable concomitance of the smoke to the fire, for instance, we can never infer the presence of the fire. Now when we say that a word *suggests* a meaning we can reduce this suggestion to a case of inference only if we are able to prove that there is an invariable concomitance between the suggesting word and the suggested sense. But we can never prove such a thing, since the same idea can be suggested by many words separately.² Now the word reveals the form of the word and its meaning; and the meaning is either expressed or suggested.³ The form and the meaning depend upon the intention of the speaker, and this intention is to be inferred; the expressed and the suggested senses, on the other hand are derived from the word.⁴ To this argument one can only reply that the plurality of effects from the same cause, is a clear negation and violation of the causal law. We cannot logically conceive of such things.

The inference is complete the moment we arrive at a conclusion. From the perception of the smoke we infer the existence of the fire and there is nothing more that can be known. But such a certainty is not found in the case of a single suggesting word. For a word gives rise to ideas or feelings.⁵ And the suggested idea does not appear to be even causal related to the expressed one; for the idea of sanctity is not at all a corollary of the hamlet being on the bank.

¹ On Alankāra sarvasva, p. 15: "Na hy abhāve bhāvātma, bhāve 'py abhāvātma. Nāpi tad utpattiḥ. Abhāvasya janya janakatvānupapattieḥ."

² Pratāparudriya, p. 41: "Vyangya vyanjakaver avinābhāvābhāvāt. Namatvādi Kāryasyāneka kāraṇakatvāt."

³ "Śabda svarūpa prakāśanecehā, śabdenārtha prakāśanecehā ceti dvidvidhā vivakṣā. Vācye vyangyāś ceti dvidvidhaḥ pratipādyah. Catuṣṭayam cedam śabdānām viśayah."

(Kumārasvāmi on the above, p. 41).

⁴ Dhvanyāloka, : "Dvidvidho hi viśayaḥ śabdānām anumeyah, pratipādyāś ca."

⁵ Pratāparudriya, pp. 41-42: "Kim caikasmād eva vyanjakāt tat tat pratipattir vivakṣānusāreṇa anekavyangyārtha pratitir anumāna pari pāṭi viruddhā."

This argument can be met squarely when we widen the scope of inference and accept implication. Implication does not argue from the causal law but from the principle of the consistent whole which is Reality. The whole is a system of interrelated particulars; and from any particular we can arrive at any other particular in the same whole. In such a case any inferential process is not complete until and unless we are able to arrive at the apprehension of the whole; since the various parts have their nisus towards the whole. And suggestion is an aspect of thought. Even in those places where no suggested meaning is possible the same thought process is seen to explain the meaning and the apprehension of meaning. In the figures of speech like 'paryāyokta' and in 'guṇibhūta vyangya' too we have the same process at work in enabling us to apprehend the meaning.¹ That such a thing is possible is accepted in the cases of 'gauṇī' or 'lakṣita lakṣaṇā' which are treated by Ānandavardhana in terms of 'lakṣaṇā mūla dhvani'.

But a mere formidable argument against this contention arises from the nature of the middle term in the apprehension of the various meanings of the same words. It is admitted that inference presupposes the knowledge of the vyāpti or invariable concomitance. But this vyāpti is not necessary as it is already implicit in the 'hetu' or reason. Thus in the argument 'there is fire on the hill, because there is smoke', the reason implicitly recognises the invariable concomitance of the smoke with the fire. Thus the presence of the 'hetu' or reason is enough for an inference. As Mahimabhaṭṭa quotes:—

“Tadbhāva hetu bhāvau hi dr̥ṣṭānto tadavedinaḥ
khyāpyete; viduṣām vācya hetur eva ca kevalaḥ.”²

It is only the uneducated that can arrive at the conclusion of an inference through 'vyāpti', for the wise man is satisfied with the mere hetu alone. The presence of the hetu implies its necessary relation with the thing to be known, felt, or proved. To apprehend this necessary relation one does not require a multiplicity of instances.

“Inductive probability depends rather on the unification of a region of experience than on the number of cases in which similar

¹ Vyakti Viveka, pp. 63-64: “Mahāviśayatvam cāśya dhvani vyatirikte 'pi viśaye paryāyoktādan guṇibhūta vyangyādan ca sarvatra sambhavāt”.

² *Ibid.*, p. 65, cf. “Prasiddha sāmāthyasya sādhanasyopādānād eva tad apokṣayā pratikṣepāt.” (*Ibid.*).

³ “Avinābhāvavāśāya pūrvikā hy anjate 'nyasya pratītic anumānam ity anumāna lakṣaṇam” (*Ibid.*, p. 111).

conjunctions are repeated.”¹ For every experience is general. We perceive the universal principles and remember the particular manifestations thereof. A repetition of instances is not going to add to our knowledge of a necessary connection between two things. And if such a necessary connection exists, even from a single experience we can arrive at it. The child does not get its fingers burnt every time when it sees the fire only to assure itself of this power of the fire. A single experience teaches it once and for ever. Here we find insight or intuition working closely in our experiences, and giving us a knowledge of the necessary connections between the presented facts. This knowledge presupposes a system of truths in its turn. “The principle of induction is not a separate and special *a priori* principle, but the fundamental assumption that the universe is a connected whole”. In other words, in every correct inductive argument, what we require is an insight into the object ; and insight is only a way of looking at an object intrinsically systematic and distinct, and thus we perceive its constitutive terms and relations. Thus it is the perception or knowledge of an interrelated coherent system that explains the particular problems. And in all the examples where we have taken recourse to ‘lakṣaṇā’ or inference, we have to find a justification for our method in this theory of implication.

(To be continued)

¹ B. Bosanquet : Implication and Linear Inference, p. 63.

NYĀYA-MĀNJARĪ

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THE RIVAL HYPOTHESES ON THE MEANING OF A SENTENCE

(1) Some logicians hold that a sentence cannot refer to external objects. It refers to ideas in their non-relational character. Though the ideas are not mutually related yet they appear as external objects standing in relation to one another. (2) Someother logicians hold that the relation which takes place among the meanings of words in a sentence is real but not imaginary. A sentence refers to external objects. (3) A different batch of logicians holds that a sentence refers to the exclusion of the contrary of its apparent meaning. When we say that it is white we mean thereby that it is not black. (4) Another sect of logicians conjectures that a sentence without taking the risk of being denied points to the relation holding among parts of speech, their meanings are arranged in order of their position *viz.* principal and subordinate and the principal act which is accomplished with the help of accessory case-endings is signified by a sentence. (5) Some other logicians suppose that a sentence signifies the operation of an agent directed towards an end, it is known as the meaning of the verb 'Karoti' and it is also designated as *bhāvanā*. The optative suffix *liṃ* denotes a particular kind of operation. It is called *śabda-bhāvanā*. It has an injunctive force in it. It impells a person to activity which is directed towards an end. It is also called an injunction. (6) Someother logicians point out that if the *liṃ* suffix denotes the above two meanings then it violates the law of parsimony and suggest that a sentence signifies an injunction. The injunction should be performed. It impells persons to activity. The followers of this school of thought are divided in their opinion. (a) The first batch of disciples admits that the suffix *liṃ* impells persons to action since they are aware of its impelling force. These disciples also hold that the other function of the suffix *liṃ* is not presented to our consciousness. The view that a sentence prescribes the performance of any act enjoined or not is too weak to maintain. Therefore an act which has been enjoined should be observed. (b) Someother disciples subscribe to

the view that when we understand something as our duty we also make out that the scripture orders us to discharge it. Hence, an injunction impells us to discharge our duty. A person engages himself in fulfilling his duty when he knows it to be such since when a man knows that it is his duty he moves for accomplishing it. (7) Some other logicians hold that a new enterprise is denoted by a sentence. So, these different hypotheses are at variance with one another. Let us see which one is correct.

THE VIEW THAT A SENTENCE DENOTES AN IDEA

Some logicians hold that no real external object is denoted by a sentence since if a real external object is denoted by a sentence then is it different from the meanings of its constituent words or not? One cannot say in the affirmative since the difference of the meaning of a sentence from those of its constituent words is grasped by no body. In the sentence "Gauḥ śukla āṇīyatām" (a white cow may be brought) the constituent words are 'gauḥ', 'śukla' and 'āṇīyatām'. The word 'gauḥ' stands for a universal. The word 'śuklā' denotes an attribute *viz.* whiteness. The word 'āṇīyatām' signifies an act. Is the meaning of a sentence identical with that of each word or with the collective meaning of all words? This problem is to be solved at the outset. Nobody will say that the meaning of a sentence is identical with that of each word since no body grasps the meaning of a sentence in this way since the meaning of the word 'gauḥ' alone cannot constitute that of the above sentence. It is not also possible to hold that the collective meaning of all words constitutes that of a sentence since the collection of the meanings of these words is not possible. How does the collection take place? Does it occur because the different meanings exist? Or, does the apprehension of them combine them? We cannot say that the meanings of the different words combine together because they exist since all objects which are denoted by words exist but no body comes across a distinct sentence which refers to all of them. Therefore it is difficult to ascertain a definite and distinct meaning of a sentence. The objects, denoted by words, are not combined by means of their ideas or awareness since ideas of objects or their awarenesses do not simultaneously arise in our mind. When we form the idea of an object the idea of another object is conspicuous by its absence. Thus the simultaneity of two ideas is not possible. Moreover the letters which constitute each word are the real means

to the appearance of the idea of an object corresponding to a word. These letters do not simultaneously come into being and co-exist. Therefore, how will the collection of objects, denoted by words, be possible through ideas?

Moreover, do all the meanings of words which assemble together constitute the meaning of a sentence, being themselves related to one another or not? We cannot say in the negative since a cow, a horse, a man, an elephant and so on are not seen to constitute the meaning of a sentence since they remain unrelated to one another. It is also difficult for one to establish the relation between two objects since the relation between the two objects presupposes their correlation. But an object does not refer to another one since they are unconscious. Ideas are also not correlative since they have only momentary existence. They cannot also unite objects with a tie constituted by themselves. For this reason a relation cannot constitute the meaning of a sentence. The objects or their ideas are not mutually related since the reason behind their non-relation has been stated before.

If we follow the above reason then the hypothesis that the negation of the contrary is the meaning of a sentence will also be refuted. (A cow cannot produce the judgment she is not a horse). The idea of an object cannot convey the negation of its opposite since this hypothesis is not logically tenable (The ideas enjoy momentary existence. Hence, they are not competent enough to convey such a judgment as its meaning.) Kumārila has also said to this effect.

In the sentence "A cow is white" if the word 'cow' denotes all sorts of cows *viz.* white, black, red etc. and if the idea of a cow produces that of white then the idea of white can negate the idea of non-white or can relate itself with that of a cow.

Though the idea of white has a reference to that of a cow yet no relation subsisting between them (these two ideas) is grasped by us.

Kumārila has also subjected the thesis to the same criticism. Though there is correlation between the two ideas or objects yet no relation subsisting between them is grasped by us. A relation is really significant if it is one of the following ones *viz.* the causal relation, conjunction, inherence etc. No such relation is detected by us. If it is held that co-existence is one of such relations then it may also be pointed out that it is too wide (Kumārila means to say that as the idea of white co-exists with many other ideas so the

said relation will also take place between the idea of white and any other idea).

In some cases, adequate words do not denote the relation which subsists between the meanings of words. Hence, it is no better than non-existent. In a sentence which conveys either the identity of one object with another or the relation holding between two objects no word is found to denote either of them. Hence, neither the said identity nor the relation is the meaning of a word. If they are not conveyed by words then they cannot be the meaning of a sentence. Again if a word is given in the sentence to denote either of them then confusion becomes worse confound. Does the sentence, "The white cow be brought the relation" convey any sense? Hence the hypothesis that a sentence points to external objects as its meaning is absolutely absurd. Hence, an idea which appears to be the relation of the external objects may be the meaning of a sentence. The people transact all their worldly business by means of it.

This is the sum and substance of this hypothesis.

THE REFUTATION OF THE HYPOTHESIS THAT AN IDEA IS CONVEYED BY A SENTENCE

The above hypothesis is not logically tenable since the existence of external objects has been erewhile established. An idea which appears to be the relation of external objects cannot be the meaning of a sentence since having established the reality of external objects we have commenced to bestow our consideration upon the meaning of a sentence. Now, we have no time to discuss the hypothesis that the meaning of a sentence is nothing but an idea. The upholders of the above hypothesis have said that the meaning of a sentence is not the aggregate of the meanings of its constituent words. Very well, let us put a question to them. We ask them to give an answer. If one utters the word 'a cow', it produces an idea in our mind. Again if one utters the sentence "Bring a white cow," it also produces an awareness in our mind. Do the word and the sentence produce in our mind the same idea? or, do they produce different ideas? If you answer the first question in the affirmative then you say something which is contrary to our experience. But you may say that these two ideas are different. They are not different if their corresponding objects are not different. So, you will be compelled to admit that the objects referred to by these two ideas are distinct. Thus, the object conveyed by a sentence is distinct. It constitutes

the meaning of a sentence. If a word denoting an attribute or a verb is only uttered along with the above noun *i.e.* a cow then a distinct meaning is conveyed by the two words combined. The expert grammarians hold that when the volume of the meaning of a word increases it is called the meaning of a sentence. Again, it is not a fact that the relation holding among the meanings of words is not presented to our consciousness. When we employ a sentence "A cow, a horse, a man and an elephant exist", the meanings of its constituent words are presented to our consciousness as unrelated to one another. In other words, they are independently presented to our consciousness. But when we employ the sentence "let a white cow be brought" the meanings of its constituent words are not presented to our consciousness as unrelated to one another. We shall elaborately discuss later on how a relation presents itself to our consciousness and what is the means of its presentation. In fine, we arrive at the conclusion that a sentence communicates an external object to us but not an idea. In other words, its meaning is objective but not subjective.

Though a sentence refers to an extra mental object yet one should not hold that it conveys merely a negative sense in the shape of the negation of the contrary of its predicate since the meaning of the sentence referred to is presented to our consciousness as a positive object and the above negative sense presupposes the relations holding between the meanings of its constituent words. (Let us now clearly state the above hypothesis and its criticism. The sentence "The cow is white", conveys the sense that the cow is not black. 'Black' is the contrary of 'white'. When we say "The cow is white" we do not assert the predicate 'white' of the cow. But we simply negate the contrary of the predicate. The critics point out that the proposition "The cow is white" consists of the main terms *viz.* 'cow' and 'white'. The first one denotes the subject and the second one denotes the predicate. If the relation which subsists between the subject and the predicate is not presented to our consciousness then the above negative sense will not be presented to our consciousness. If we do not know that the cow is white then we cannot understand that she is not black. If we know that whiteness inheres in the cow then we are in a position to grasp that blackness does not inhere in it. The knowledge of the absence of blackness presupposes the presence of whiteness).

When the word 'cow' is used it produces an awareness of all cows. If the word 'white' is syntactically connected with the word

'cow' then it excludes the connection of the word 'black' with the word 'cow'. Therefore, you cannot hold that a sentence conveys only the sense of an exclusion. The very knowledge of the relation of the predicate with the subject throws light upon the exclusion of the contrary of the predicate from the subject. When we know that the meaning of the term denoting the subject of a proposition is related to that of the term denoting its predicate, we grasp the complete meaning of the said proposition, *i.e.*, a sentence. When we understand the complete meaning of a sentence the exclusion of the contrary of white, *viz.*, the black, etc., may be implied by the same sentence. If such an implied meaning takes place, let it take place. But on account of this implied meaning we cannot hold that a sentence conveys only a negative sense, *i.e.*, communicates the exclusion of the contrary of its predicate.

THE DEMONSTRATION OF THE HYPOTHESIS THAT A SENTENCE
CONVEYS SOMETHING WHICH IS TO BE ACCOMPLISHED
BECAUSE OF ITS IMPORTANCE

From the above criticism it is clear that a sentence conveys a positive sense and the meaning of a sentence is other than our ideas. Now, some thinkers hold that a sentence points to something which is to be done. They purport to convey the following idea. The meanings of words constituting a sentence have mutual reference. Their mutual relationship creates an atmosphere which renders their mutual reference favourable. Hence, it is the current view that the meanings of the constituent words of a sentence, being related to one another, form the meaning of a sentence.

The meanings of words are not mutually related if they are not arranged in the relation of the principal and the subordinate. We are to determine which one of them is principal and which ones are subordinate. If a verb does not find a place in the sentence then a sentence cannot be used since a verb being not uttered the requirement of a listener is not fulfilled. In cases of worldly transactions in order to satisfy the requirement of a listener a sentence is employed. We also make out the meaning of Vedic sentences as we do in cases of ordinary sentences used in mundane transactions. From a verb we know that an object which is to be accomplished is its meaning and that the object consists of parts standing in the relation of prior and posterior in time. We also learn that a verb does not communicate the sense of an accomplished fact. In a

sentence there are words denoting accomplished facts and a word which signifies an object to be accomplished. Let us now discuss their mutual position in a sentence. Does a word which stands for an accomplished fact occupy the principal position? Or, does a word which signifies an object to be accomplished occupy the principal position? Having bestowed due deliberation on the matter we learn that accomplished facts are taken as means in order to realise the object to be accomplished. An object to be accomplished should be done and hence it occupies the superior position. It is the meaning of a sentence. It is not distinct from the meaning of a verb.

Whenever we are aware of an object to be accomplished by us it points to the means which are required for its realisation. An object to be accomplished is directly related to some of these means, i.e., some means are proximate. Some means are indicated by words which do not occur in the sentence. Some means are pointed by some other sentences. Some means are revealed to us by passages occurring in other contexts. Some means render their indirect assistance to realise the object to be accomplished. Some means are abandoned by the object to be accomplished though they stand in close proximity but lack capacity. Though some means stand in a remote place yet the object to be accomplished attracts them since they are capable of bringing it about. An act (an object to be done) which is performed by a host of objects denoted by case-endings rendering proximate or remote help to it is the meaning of a sentence.

[On hearing the injunctions such as "One should sacrifice", "One should make gifts," "One should pour libation," "One should study the Vedas" and so on a person who is impelled to action knows that this action should be performed and performs it. The word which reveals qualifications for a person wishing to perform an action implies the agent who is required for the performance of an action. Thus it makes us understand that an agent has usefulness in his action. It purports to convey that this person is the agent of this particular action and this action is to be completed by this person. In that case an agent forsakes its principal position in a sentence since an agent is a means to an action but not *vice versa*. An agent is also known to us as the executor of an action. A sentence also advises a person to this effect that he should do this. If you ask "Why does a person perform an action?", then our rejoinder is that the sentence which enjoins a person to do is regarded by him as the valid source of knowledge. One has been ordered by the injunctive sentence, "One should perform this action.". If a person who has been thus ordered

does not perform the prescribed action then he will transgress an injunction, *i.e.*, an obligatory duty. One discharges his duty because he has conviction in the validity of the scriptures. A man who does not covet for the fruit of an action performs an action because he is goaded by the habit of performing actions. This habit strengthens his attitude of indifference towards the worldly objects. This attitude being confirmed, he gradually negates the reality of all worldly objects. Thus, he acquires the highest qualification for realising the absolute. As he qualifies himself so he acquires a deep insight into the subtle truth. The highest qualification, acquired by him, enables him to grasp the summum bonum of life. If we are to discuss this matter then we are to prolong this topic to a greater length. Let us cut short this discussion for the present. The drift of this section is that as an action plays the most important part in a sentence so it is the meaning of a sentence. Jaimini says "That which does for another is śeṣa (subsidiary). A substance, the attribute of a substance and the consecration of a substance occupy a subsidiary position in a sentence. But a sacrifice, its result, *viz*, heaven, etc., and a person who enjoys the result are not regarded as śeṣa." The inner significance of Jaimini's sūtra is that a substance, the attribute of a substance and the consecration of a substance render a service to an action but an action assists none. In other words, an action is an end in itself but not a means to an end. Thus it is not subsidiary.]

THE DEMONSTRATION OF THE HYPOTHESIS THAT A SENTENCE POINTS
TO THE RESULT OF AN ACTION SINCE THE FRUIT OF AN ACTION
IS SUPERIOR TO THE ACTION ITSELF

The criticism of the above thesis is as follows. Why does an action occupy the principal position in a sentence? Does it occupy such a position by its intrinsic nature? Or does it acquire the position by verbal authority?

If we look over the problem from the realistic point of view then we find the superiority of the fruit of an action. No intelligent man undertakes a fruitless action.

Though a person is enjoined by the Vedas or directed by his superiors or commanded by his king to do an action yet he does not betake himself to it when he is not confident of his success. A dullard carries out the order of his superiors either in order to avoid a slap or in order to gain a sweet-meat. In other words, a fool indiscreetly undertakes an action either out of fear or out of greed.

The Mīmāṃsakas re-examine their criticism and hold that they will not decide the question of superiority from the realistic point of view but from the linguistic point of view. They attach the highest authority to the verbal knowledge. The knowledge which is communicated to them by words is taken as valid. Let us take an example *viz.* king's servant (rāja-puruṣa). If the actual order of things is taken into consideration then a king occupies the most exalted position, being the ruler of the world. The wretched person who serves him earns his livelihood, obeying his will. But if the superiority is decided from the linguistic point of view then the servant occupies the superior position in the compound word. The reason is that in a tat-puruṣa compound the sense of the last member predominates. Similarly, in case of the above injunctions *viz.* "One should sacrifice", "One should make gifts," "One should pour libations" etc. an action has been emphatically advised. The sense of an action predominates in those injunctive sentences. But one who is desirous of heaven should sacrifice. Now why the clause "Who is desirous of heaven" has been given? Does it not point to the fruit of an action? Let the question of superiority be settled. An agent has been mentioned for the purpose of an action. In other words, an agent is a means to an end. The end is an action. But if an action is done and a result is produced in the natural order of things then let the result be produced. Let an agent put forth his energy for the fruition of his action. But the above injunctive sentences do not attach prominence to the fruit of an action. The statement that if an action is performed then the result itself follows is significant. What is the significance of the word itself? It purports to convey that an action is not a means to an end *viz.* the result of an action.

The above contention of the Mīmāṃsakas is not logically sound. If they interpret the injunctive sentence "Svargakāmo Yajeta" in the above manner then it will be difficult syntactically to connect the word "Svargakāmaḥ" with the verb 'yajeta'.

The Mīmāṃsakas meet the objection with the following remark. The word in question denotes the subject of the sentence. A subject is a means to an action but not vice versa. The critics point out that the word 'Svarga kāmaḥ' does not stand for the subject. It refers to one who qualifies himself for the enjoyment of the fruit of an action. But nobody is known to be desirous of heaven from his very birth so that he may be engaged in the action as an agent. The literal meaning of the word "Svarga kāmaḥ" is either of the

following two. A man who has a longing for heaven is called 'Svargakāmah.' Or, a man who wishes for heaven is called 'Svargakāmah.' The two senses of the above term clearly state that a person who has set his heart upon heaven is Svargakāmah.

Now, Let us discuss how heaven, the object of desire, is syntactically connected with the verb. Does it render visible or invisible help to the verb?

HEAVEN DOES NOT VISIBLY ASSIST THE VERB

The sentences, *viz.* "Sandal is heaven," "Damsels, sweet sixteens, are heaven" imply the identity of heaven with substances like Sandal, damsels' etc. Hence the word 'heaven' denotes a substance. Jaimini holds that if substances are related to the object of a verb then they, assisting the object of a verb, are related to the verb. As sour milk and other such objects, being an accessory matter, render assistance to an action so heaven indirectly contributes its help to the action in question. Desire, also, has its contribution in this matter because it exercises influence over the collection of materials which are a means to the action in question. Thus it benefits an action. The benefit which such desire renders to an action is visible since a person moves for collecting materials, being induced by such desire.

The view in question is not sound since the word 'heaven' does not denote a substance since it denotes bliss but not a substance. The very sandal is not heaven to a person who is afflicted with cold. But it is said to be heaven by him who is oppressed by the heat of summer. The very lady is designated as heaven by an erotic person. But she is not so to a person whose passion has subsided. Thus heaven invariably denotes bliss but not a substance. As heaven is not a substance so it is not a means to action. Some thinkers imagine that the peak of the gold-mountain is heaven since no other place is an abode of infinite bliss. Such a place is not a means to the said action since nobody can have an access to it like sour milk etc.

HEAVEN DOES NOT RENDER INVISIBLE HELP OF AN ACTION

If one imagines that our inner organ is an ocean and concentrates his mind upon this imaginary object then he acquires merit and thereby benefits an action. Similarly, desire for heaven will generate merit and through this invisible result help the act of sacrificing. Such an assumption is far-fetched. Heaven is infinite bliss. Bliss is

not a means to an end. But everything else is a means to bliss which is an end in itself. Hence, heaven is not a means to a sacrifice. But a sacrifice is a means to heaven. Thus as the above sentence does not enjoin a means to a sacrifice so the word 'Svarga-kāmah' (one who desires heaven) is not syntactically connected with the verb since it does not communicate an agent. If you ask, "How is it connected with the verb?" Then we say that the word stands for one who enjoys the fruit of an action.

Who enjoys the fruit of an action? He who is entitled to own the result of an action enjoys it. He who is capable of producing an action has right to enjoy its fruit. Now, the Mīmāṃsakas may contend that the agent of an action is only entitled to enjoy its fruit. They suggest that an *adbikarin* is a *kartr*. In other words, the word 'Svarga-kāmah' stands for an agent. The word 'svāmi' suggests an agent but does not denote. In order to be the owner of the result of an act the person must possess capacity. A person does not acquire the right of ownership simply because he happens to be an agent. The relation which holds between an action and a person is not distinct from that which subsists between a case-ending and a verb. (This is the contention of the Mīmāṃsaks) (The Naiyāyikas reply). A person knows at first that it is his duty and he is capable of discharging it. Thus a person, being aware of the ownership relation, grasps the case-relation. In other words, he is conscious of the case-relation afterwards.

Now, the Mīmāṃsakas raise another point against the above decision. They say "You do not deny existence to the case-relation as the upholders of the thesis that a word denotes only a universal refuse to believe the awareness of an individual. But how will you prove that the case-relation is subsequently presented to our consciousness?" Some thinkers give an answer to this question. They hold that the person requires no further qualification *viz.* his distinct relationship with the verb since he has been already mentioned as qualified. A person who possesses the requisite qualifications of an agent *viz.* capacity etc. becomes the agent of an action.

If a person does not possess such qualifications then he has no right to enjoy the fruit of an action. For this reason, we hold that a person who possesses the requisite qualifications is the real agent. Mere agency does not confer upon a person the right to enjoy the fruit of an action. Thus a person who desires heaven acquires the said right. If he performs an action with the purpose of attaining heaven then he thinks "Let heaven be my enjoyable object. How

can I attain heaven, and under this aspiration longs for heaven as his goal. Hence, the performer of a sacrifice is mentioned as one who desires heaven. If that action does not lead to heaven then an opposite idea is presented to our mind *viz.* he desires heaven but performs a sacrifice. He longs for one thing but does another thing. Such a critical attitude of our mind may develop. Therefore, if it is not admitted that an action is a means to one's desideratum then a person who desires heaven cannot engage himself in that action. If a person is not entitled to an action then he can in no way be connected with it. So when one deserves the fruit of a sacrifice he who desires heaven goes to perform a sacrifice. The title does not accrue to a person if the causal relation does not subsist between the act of sacrifice and heaven. Hence, we must admit that heaven is the end and the act of sacrifice is a means to it. Therefore an action, being a means to its fruit—the end, cannot maintain its principal position in a sentence. We cannot hold that the sentence which contains a verb signifying this action purports to convey the action as its meaning. Jaimini has also said to this effect:—"When an action is performed in order to realise an object an action occupies a subordinate place, being itself accessory.

Say, "Which action is the meaning of a sentence?" Do you say that the act of sacrifice, the meaning of the root 'yaj', is the meaning in question? Or, do you say that the said action is conveyed by a suffix attached to the root? Of these two suppositions what is conveyed by a root is a means to the object of desire. Hence, the action which is conveyed by a root occupies a subordinate place. This position has been already made clear. The meaning of a suffix becomes that of a sentence when it is presented to us only as a means to the meaning of a root and the object of desire. In no way it is presented to our consciousness. Our rival thinkers also approve of this hypothesis. Hence, we hold that no sentence purports to convey an action as its principal meaning. We believe that this view is shared by all.

AS A PERSON IS MORE IMPORTANT THAN THE RESULT TO BE ATTAINED
SO HE MAY BE THE MEANING OF A SENTENCE

Let us now follow the logical development of the above two hypotheses. Why do you say that a result is signified by a sentence? Why do you discard the hypothesis that an action is the meaning of a sentence? The reason is that it occupies a subordinate place. This logic applies to the case of a result also. A result is also subordinate to a person since it serves the purpose of a person. Heaven is not

attained by itself. A person endeavours to attain it. But everybody desires all objects as they are to be enjoyed by him. As they are desired by a person so they do not occupy a principal position in a sentence. Jaimini has stated that a result is also not prominent since it serves the purpose of a person. Now, the logical conclusion which is suggested by the above discussion is this that a person who performs a sacrifice should be the meaning of a sentence. He uses freedom and leans upon none. The Mimāṃsakas point out that the above conclusion is not satisfactory. A person is also used as a means. He is engaged in consecrating posts made up of fig trees. The height of a post made up of fig tree is measured by that of a person. Thus a person is required to some action. Jaimini also holds that a person is a means to an action.

THE REFUTATION OF THE HYPOTHESIS THAT AN ACTION OR A PERSON IS SIGNIFIED BY A SENTENCE

If we admit the authority of Jaimini then we are in a fix. We do not know what we shall do. Let us clearly state the problem. One acts in order to have a result. A result in its turn serves the purpose of a person. The aim of a sacrifice is also to complete an action. If the wheel of prominence revolves in this fashion then which of them will occupy the principal position in a sentence? Which will be the meaning of a sentence?

Our answer to the above problem is as follows. A person is not the meaning of a sentence since there is a divergence of opinion regarding the hypothesis that a person is signified by a verb—not to speak of the hypothesis that a person is signified by a sentence. Why do you say that the agent, *i.e.*, the performer of an action is not signified by a verb? According to the rule laid down in Pāṇini's grammar a lakāra (a verb in all its tenses) signifies an agent. Why shall we not hold that an agent is signified by a verb? What is the meaning of the term (lakāra)? Pāṇini enjoins that when the present tense of a verb is to be indicated lakāra assumes the form of *lat*. When an agent is to be communicated the suffix 'sap' is attached to it. A verb takes an inflexion in the second person when it is syntactically connected with second person pronoun. A verb takes an inflexion in the first person when it is syntactically connected with first person pronoun. A verb takes an inflexion in the third person when it is syntactically connected with the third person. The inflexions which indicate the third person are 'tip', 'tas' and 'jhi'. In order to indicate the plural number of a person the terminal inflexion which is attached

to a verb has a definite form. To indicate the dual or the singular number of a person the terminal inflexion, attached to a verb, has a distinct form. Thus, each number has been distinctly indicated by a separate sentence. The sutras which enjoin cases, number and case-endings should point to syntactical unity as they all refer to one and the same substantive. The sentence "One person cooks" has been interpreted by the authorities on grammar thus: As the number of the nominative case of the verb (to cook) is singular so the terminal suffix 'tip' is attached to it. If there are two nominative cases of the verb (to cook) then the terminal suffix 'tas' is attached to it. If the nominative cases of the verb (to cook) are more than two then the terminal suffix 'jhi' is attached to it. Thus it is clear that the number of the nominative case is conveyed by a verb with a suffix attached to it but not the nominative case. Hence, how is it that the nominative case of a verb, *i.e.*, an agent, is conveyed by a verb? There is no need of elaborately discussing the subject matter of another science. Therefore, a person who performs an act is not the meaning of a sentence. The result produced by a verb, is not the meaning of a sentence since the dilemma that a result is either an accomplished object or not cannot be solved. If a result is an accomplished fact then the designation does not properly apply to it since it has been mentioned as an object of desire.

THE PROOF OF THE HYPOTHESIS THAT BHĀVANĀ IS THE MEANING OF A SENTENCE

If an accomplished fact is not a result then a result is to be brought into being. In that case, we cannot imagine that a result cannot be produced. Therefore, the Mīmāṃsakas propound the hypothesis that an activity is the meaning of a sentence. This activity or process leads on to a possible result. Hence, it is bound up with past, present and future times.

THE DETERMINATION OF THE NATURE OF AN ACTIVITY

What is a bhāvanā, *i.e.*, a process. A bhāvanā is that which brings into being an object to be produced. The result, *viz.*, heaven etc., is to be produced since it comes into being. Whatever comes into being is also brought into being. Our experience teaches that whatever comes into being is the nominative case of the verb. 'to be'. Whatever is either eternal or unreal does not come into being. Kumārila Bhaṭṭa says to this effect in his Śloka-vārttika. [An object

which does not come into existence or which endures for ever cannot be created like the sky-flower or the sky.]

Heaven and such other objects which are objects of our desire are other than the sky and the sky-flower. For this reason such objects may be created. A *bhāvanā* is an activity of the agent towards a course of action which terminates in a result. It signifies that it causes one to come into being. This idea is expressed by a causal suffix attached to the verb 'to be'. The heaven is the nominative case of the non-causal verb 'is'. The nominative case of the original verb becomes the objective case of the same verb with the causal suffix attached to it. Thus '*bhāvanā*' denotes the activity of an agent who causes something to come into being. A person brings into being heaven which is to come into being, by means of his own activity. The very activity which produces it (a result) is called '*bhāvanā*'.

Now, the propounders of the hypothesis that a sentence signifies an action put a question to the framers of the new thesis. They suggest that the so-called activity of a person is nothing but an action. This activity is not distinct from an action. It is not a class by itself. Hence, the hypothesis that a sentence points to an action has not been refuted. This suggestion creates a new problem. An answer to this problem is as follows: Any and every action is not a *bhāvanā*, *i.e.*, the activity of an agent. *Bhāvanā* is the activity of an agent. But it is distinct from all visible sacrificial acts which are done in an order of time, *viz.*, prior and posterior. Some of these acts are previously performed and the others are subsequently performed. All these acts are arranged in due order of time. A *bhāvanā* is distinct from the aggregate of the sacrificial acts thus arranged. The activity of an agent is experienced by us as distinct from such sacrificial acts taken both singly and collectively.

A *bhāvanā* (the activity of an agent) is not to be produced by any one of those acts. It does not produce only one of those acts. But it produces all acts which are produced and which, at the same time, produce other acts. This activity is distinct from all acts and cases and is communicated to us by a word. (This is the sense of the above verse). Let us critically examine an example. A verb in the subjunctive mood, *viz.*, *Yajeta* has been illustrated. If we analyse the word '*yajeta*', we find that it consists of two parts, *viz.*, a verb (the root *Yaja*) and a suffix, indicative of subjunctive mood. The root '*yaj*' signifies the act of sacrifice etc. The suffix, attached to the root, communicates an injunction which has an impelling force

and the number of agent etc. But the activity of an agent which is distinct from processes, denoted by a root, and is called bhāvanā is not conveyed to us by a suffix. Pāṇini recognises no such inflection like the suffix indicative of the subjunctive mood as points to the activity of an agent. Hence, the activity of an agent does not constitute the meaning of a sentence.

(To be continued).

BENGAL (1750-1800)

HEMENDRA PARSAD GHOSE

CHAPTER IV

AFTER THE GREAT FAMINE

After the famine (1770 A.D.) plenty returned to the silent and deserted Province. But the masses could take no part in that plenty nor did they enjoy peace.

The actual state of things would be apparent from the following description of the district of Beerbhoom, given by Hunter who depended for his materials on official records:—

“In the large province, as it was then called, of Beerbhoom there had been close on six thousand rural communes under cultivation, 1765. This was found four years before the famine; three years after it, there were little more than four thousand five hundred. No new generation, meanwhile, was growing up, for the young had suffered most severely during the famine, and throughout the ensuing sixteen years (1770-1785) depopulation went steadily on. In 1771-1772 more than one-third of the district had been written down as ‘Palataka’, deserted, and in 1776 out of an estimated rental of £114,482 only £63,350 were realised. The inhabitants, no longer able to defend themselves from the wild beasts, drew closer and closer together towards the centre of the district, the roads became impassable by reason of the jungle, and a country formerly so convenient for the passage of troops that it had repeatedly been selected as the battle field on which was decided the fate of Bengal, and one which is now so closely cultivated that hardly a tiger or even a wild pig can be found within its boundaries, is described by a traveller in 1780 as a pathless forest. In one of the earliest numbers of the first newspaper published in India (*Hickey’s Gazette* of 20th April, 1780), a correspondent states that Colonel Blair with a Detachment of Sepoys had forced a passage ‘through the Beerbhoom Province, a route that no body of troops ever marched before. They marched through but an extensive wood, all the way a perfect wilderness. Sometimes a small willage presented itself in the midst of these jungles, with a little cultivated ground around it, hardly sufficient to encamp the two batallions. These woods abound with tigers and bears which infested the camp every

night, but did no other damage than carrying off a child or killing some of the gentlemen's hackery (wagon) bullocks'." ¹

The condition of Birbhoom was typical of the condition of almost all the districts in northern, central and western Bengal, as the effects of the famine had passed lightly over East Bengal only.

The famine had been as bad as a convulsion of nature, an earthquake or a tornado or the active work of a volcano.

But the Company was relentless in its collections. In the letter which Warren Hastings and his colleagues wrote to the Court of Directors on the 3rd November, 1772 they tried to explain why a diminution of the revenue of the Company had not been consequent on the calamity.

"To ascertain all the means by which this was effected will not be easy. It is difficult to trace the Progress of the Collections through all its Intricate Channels, or even to comprehend all the Articles which compose the Revenue in its first operations. One Tax, however, we will endeavour to describe, as it may serve to account for the Equality which has been preserved in the past Collections, and to which it has principally contributed. It is called Najay, and it is an Assessment upon the actual inhabitants of every Inferior Description of Lands, to make up for the loss sustained in the Rents of their neighbours, who are either dead or have fled the country" ²

They admitted that the tax was "equally impolitic in its Institution and oppressive in the mode of exacting" and "had not the sanction of the Government, but took place as a matter of course". It was also "irreconcilable to strict justice", but was resorted to. It was a case of necessity knows no law.

In 1776 the scarcity of cultivators had completely transposed the ordinary relations in Bengal of landlord and tenant. "In the present state of the country," wrote Mr. Francis in that year, "the ryot has in fact the advantage over the zemindar. Where so much land lies waste and so few hands are left for cultivation, the peasant must be courted to undertake it." ³

By degrees the agricultural population divided itself into two classes, the so-called resident cultivators who, from attachment to their family inheritance or by reason of indebtedness to the superior land-holder continued on the same estate as before the famine, and a

¹ *Remarks on the Great Famine 1769-1770* (Published in 1865).

² Letter to the Court of Directors.

³ Minute of Mr. Francis, Revenue Collections, 1776.

more adventurous class termed non-resident or vagrant cultivators, consisting of immigrants from adjoining territories, and of subjects of the Company who had abandoned their previous holdings. "Within six years after the depopulation the classification had distinctly taken place, and the migratory agricultural class, which had formerly been an insignificant element in the population continued during 30 years to be the most prominent feature in the rural economy of Bengal".⁴ "Everything tended to develop the growth of this class. Landholders saw one-half of their estates lying waste for want of cultivators, and they began to entice away the tenantry of their neighbours, and even to import labour from foreign States. In order to encourage them to settle, holdings were offered at very low rents, and the proprietors became every year more impoverished, they became more and more eager in bidding against one another for the services of the non-resident agricultural class till at length such cultivators obtained their land at half price. The resident husbandmen, unable to compete on these terms, threw up their holdings in great numbers."⁵ By 1784 the desertion became so serious as to attract the attention of the British Parliament. "The land still remained vacant of cultivators, however, and it was not till 30 years after the famine that abundant import of labour and the growth of a new generation restored inhabitants to Bengal. 'Every proprietor is collecting husbandmen from the hills to improve his low lands,' wrote Mr. Thomas Lawd in 1792, but in spite of such efforts the most moderate calculation stated the uncultivated portion of the province at one-third, while other authorities asserted that at least one half, if not two-thirds of Bengal lay waste".⁶

Thus men from the hills and aborigines from the neighbouring provinces came and were invited and encouraged to settle in Bengal creating a new element in the population of the Province.

The country became every year a more total waste, but the English Government constantly demanded an increased land-tax!

Violent feuds broke out among the landed proprietors who kept in their service armed retainers and encouraged and harboured dacoits who served them as and when necessary. English officials often took an active part in the quarrels between landed proprietors. It was said that a gang-robbery never occurred without a landed proprietor being at the bottom of it.

⁴ Hunter—*Annals of Rural Bengal*.

⁵ *Vide Hastings' Minute of 12th November, 1776.*

⁶ Quoted by Hunter from a rare tract in Ooterpara collection.

To add to the miseries of the people Bengal was practically held by banditti.

[Writes Hunter :—

“ Bands of cashiered soldiers, the dregs of the Mussulman armies, roamed about plundering as they went. They frequently dressed themselves in the Company's uniform, with a view to wholesale extortion from the villagers, a fraud rendered so plausible by the disorderly conduct of our own troops on the line of March, that a series of stringent enactments failed to put it down. Lawlessness breeds lawlessness, and the miserable peasantry, stripped of their hoard for the winter, were forced to become plunderers in turn. Early in 1771, the local officers report ‘ the frequent firing of villages by the people whose distress drives them to such acts of despair and villany. Numbers of ryots, who have hitherto borne the first of characters among their neighbours, pursue this last resource to procure themselves a subsistence’. They formed themselves into bands of so-called houseless devotees, and roved about the country in armies fifty thousands strong. ‘ A set of lawless banditti,’ wrote the Council in 1773, ‘ known under the name of Sanyasis or Faquirs, have long infested these countries; and, under pretence of religious pilgrimage, have been accustomed to traverse the chief part of Bengal, begging, stealing, and plundering wherever they go, and as it best suits their convenience to practise. In the years subsequent to the famine, their ranks were swollen by a crowd of starving peasants who had neither seeds nor implements to recommence cultivation with, and the cold weather of 1772 brought them down upon the harvest fields of Lower Bengal, burning, plundering, ravaging, ‘ in bodies of fifty thousand men’. The collectors called out the military; but after a temporary success our Sepoys ‘ were at length totally defeated, and Captain Thomas (their leader), with almost the whole party cut off. It was not till the close of the winter that the Council could report to the Court of Directors, that a battalion, under an experienced commander, had acted successfully against them’.”

But the intimation was premature—a case of wish being father to thought. For, on 31st March, 1773. Warren Hastings admitted that the commander who had succeeded Captain Thomas “ unhappily underwent the same fate”, and four battalions of the army were then actively engaged against the banditti, but that, in spite of the

militia levies called from the landholders, their combined operations had been fruitless.

“The inhabitants made common cause with the marauders, and the whole rural administration was unhinged”.

In a letter written by Hastings on 9th March, 1773, we read:—

“Our own provinces have worn something of a warlike appearance this year, having been infested by bands of Senassies, who have defeated two small parties of Purgunnah Sipoy (a rascally corps) and cut off the two officers who commanded them The history of this people is curious. They inhabit or rather possess the country lying south of the hills of Tibbet from Caubul to China. They go mostly naked. They have neither towns, houses, nor families, but rove continually from place to place, recruiting their numbers with the healthiest children they can steal in the countries through which they pass. Thus they are the stoutest and most active men in India. Many are merchants. They are all pilgrims, and held by all castes of Gentoos in great veneration. This infatuation prevents our obtaining any intelligence of their motions, or aid from the country against them, notwithstanding very rigid orders which have been published for these purposes, in so much that they often appear in the heart of the province as if they dropped from heaven. They are hardy, bold, and enthusiastic to a degree surpassing credit. Such are the Sennassies, the gipsies of Hindostan.”⁸

Indeed these people—robbers and roving pilgrims combined—formed a curious band harassing the people and terrorising them and, at the same time, paralysing the administration which the English were building up in the province. They were a terror to the Province and a power to reckon with—a factor unknown in most countries.

According to W. T. Stead war is the sum of all knaveries. It was about the Boer War that he wrote with characteristic boldness—“Slavery is said to be the sum of all villainies, but war is assuredly the sum of all knaveries. The suspension of the moral law which is assumed when war is declared is not by any means confined to the sixth commandment. The elimination of ‘not’ in the Command ‘Thou shalt not kill’ is no doubt its first and immediate effect; but it would seem that as in war killing is no murder, so stealing is regarded as no offence. The story of the frauds practised by contractors and others who flourish in war time, supplies an even more squalid and seamy side to glorious war than the carnage of the battle field.” But when war and famine appear hand in hand the

⁸ Gleig—*Memoirs of the Life of the Hon. Warren Hastings*.

situation becomes even worse. Famine, like war, makes man abandon all considerations of humanity and demoralises and debases so absolutely. In Bengal after a period of maladministration war and famine appeared as twins. And no wonder the condition they created was congenial to robbery. The Sannyasis were not the only organised gangs of dacoits infesting Bengal and terrorising the people. The arm of the Government—new and feeble—was not long enough to reach them nor strong enough to strike them. The Thugs and dacoits were here, there, everywhere. Most of the districts were harassed by dacoits.

The most persistent disturbers of the peace in Midnapore were the Chuars—members of the wild tribes who inhabited the Jungle Mahals and the tracts beyond them. The Jungle Chiefs or Zamindars were a turbulent and independent class. Towards the close of the nineteenth century the Chuars broke out in open rebellion. The break began in 1798. Price in his "Chuar Rebellion of 1799" states "1799 A.D. is marked in the Midnapore annals as the year of great Chuar rebellion, ghastly with its horrors and massacre..... It was not till the close of the year that the District was restored to a state of only partial tranquillity." When the British occupied Ausgarh, Karnagarh Rani Shiromani—suspected to be one of the leaders of the rebels, was put under arrest and brought to Midnapore as a prisoner (6th April, 1799).

In the District of Naddea the name of the village—Oola—was changed to Birnagar (the place of heroes) when the inhabitants of that place succeeded in capturing some dacoits. The then district authority wrote thus—"The spirited conduct of the inhabitants of Ooloo on the present occasion entitles their town to be designated with a more worthy name and to some mark of distinction. The name of the village should be changed to Beernagar, that is the town of heroes. In the encounter with the dacoits 9 villagers were wounded while the dacoits were arrested. The band of dacoits consisted of men of various castes including Brahmins and Kayasthas as stated in Sri Nath Mitra Mustaffy's "Ula or Birnagar".

The dacoits were well organised and the spoils were often brought from great distances. Even Calcutta was not safe from the attacks of these dacoits. In despair Warren Hastings ordered that every convicted dacoit should be executed; he should be "executed in all the forms and terrors of the law in his native village; that his whole family should be made slaves; and that every inhabitant of the village should be fir

In spite of these severities, however, dacoits continued to flourish. Sometimes they set fire to houses and attacked villages and towns under cover of confusion occasioned by it. "The conflagrations that resulted threatened to destroy whole cities. In March, 1780, a fire occurred in Calcutta that burned down fifteen thousand houses. Nearly two hundred people perished in the flames. Clear cases of incendiarism are constantly recorded, and at length it was gravely recommended that those owning straw houses should have bamboo with three hooks at the end to catch the villains." "It became an invariable practice in English houses for the porter to shut the outer door at the commencement of each meal and not to open it till the butler brought him word that the plate was safely locked up. If English houses where there were guns could be raided what wonder that the Indians were in constant danger of being plundered by gangs of dacoits?

The sufferings of the people knew no bounds. There was none to protect them. There was no strong government as in Vishnupur to safeguard the rights of the people. The Abbe Raynal gave the following account of Vishnupur under the Hindu kings:—

"Liberty and property are safe in Vishnupur. Robbery, either public or private is never heard of. As soon as any stranger enters the territory, he becomes under the protection of the laws which provide for his security. He is furnished with guides at free cost, who conduct him from place to place and are answerable for his person and effects. When he changes his conductors, the new ones deliver to those they relieve an attestation of their conduct, which is registered and afterwards sent to the Raja.....Whoever finds a pursé or other thing of value hangs it upon the first tree he meets with, and informs the nearest guard who gives notice of it to the public by beat of drum."¹⁰

If this could be the condition in a small territory in Bengal how is it that the parts of the Province outside it was a prey to dacoits? The Government must be held responsible for this disgraceful state of affairs.

The meek resignation of the people of Bengal during the famine which surprised the Abbey Raynal had, it seems, become a second nature with them. Many years later Hunter wrote:—

"The Bengali bears existence with a composure that neither accident nor chance can ruffle.....the emotional part of his nature is

⁹ Hunter—*Annals of Rural Bengal*.

¹⁰ *Philosophical History of the Settlement in the East and West Indies*.

in strict subjection ; his resentment enduring but unspoken; his gratitude of the sort that silently descends from generation to generation. The passion for privacy reaches its climax in the domestic relations. An outer apartment, in even the humblest households, is set apart for strangers and the transaction of business, but everything behind it is a mystery. The most intimate friend does not venture to make those commonplace kindly enquires about a neighbour's wife or daughter, which European courtesy demands from mere acquaintances. This family privacy is maintained at any price. During the famine of 1866 it was found impossible to render public charity available to the female members of the respectable classes, and many a rural household starved slowly to death without uttering a complaint or making a sign."¹¹

It is a subject of study—this resignation to suffering without protest—to oppression without attempt to strike in a people who had once won reputation as a martial people from the days of Alexander the Great who had heard of the Bengal armies, with trained elephants. It is on record that when the Raja of Kashmir had a Bengal King assassinated treacherously in Kashmir a band of Bengalis proceeded to far off Kashmir and there attempted to avenge the death of their King and fell fighting there.¹² What were the reasons which combined to create such a change in the people of Bengal who had accepted and developed the cult of *Sakti* (power) and who had been brave fighters?

One of the chief causes of the deplorable degradation of the Irish under foreign rule was the oppression of the landlords, *i.e.*, those in power. Wrote Arthur Young :—

“The landlord of an Irish estate inhabited by Roman Catholics is a sort of despot who yields obedience to whatever concerns the poor to no law but his own will. Speaking a language that is despised, professing a religion that is abhorred, and being disarmed, the poor find themselves in many cases slaves even in the bosom of written liberty. A landlord in Ireland can scarcely invent an order which a servant, labourer, or cotter dares to refuse to execute. Disrespect or anything tending to haughtiness he may punish with his cane or his horsewhip with the most perfect security. Knocking down is spoken of in a manner that makes an Englishman stare. Landlords of consequence have assured me that many of their cotters would think themselves honoured by having their wives or daughters sent for to the

¹¹ Hunter—*Annals of Rural Bengal*.

¹² *Rājtarangini*.

bed of their masters, a mark of slavery that proves the oppression under which such people must live"¹³.

This is the passage which Morley cited in reply to an able supervisor Government relief works in Ireland who held that the Irish knew no difference between the truth and a lie, and said that no social system on earth, or in the darker realms under the earth, could have been better devised for breeding men indifferent to questions between truth and lies. Men talk of the necessity of history and the fatality of race; but let us be quite sure in Ireland not to set down to the second what is easily explained by the first."¹⁴

It was in this state of things described by Young that Thomas David wrote :—

"God of Justice, I cried, send Thy spirit down
On those lords so cruel and proud,
Soften their hearts and relax their frown,
Or, else, I cried aloud,
Vouchsafe strength to the peasant's hand
To drive them at length from out the land."

And what was the outcome of the oppression? Wrote the same poet :—

"Remember still, through good and ill,
How vain were prayers and tears,
How vain were words till flashed the swords
Of the Irish volunteers."¹⁵

The Hindus—members of the majority community, had been for a long time under the oppressive rule of Moslems who were despots. The language of the Hindus was despised and their faith was abhorred. At times the rulers made them pay an especial tax because of their religion and we have seen how men like Siraj-ed-Dowla could perpetrate atrocities with impunity. In the demoralisation of the people lay the security of the rulers.

In many cases the execrable example of the rulers was imitated by the landholders—both Hindu and Moslem.

Of Russia under the Tzars Gardiner has given the following incident in the life of Prince Kropotkin who throughout his career had been dominated by two passions—the passion for intellectual conquest and the passion for human liberty :—

The horrors of serfdom scotched the sensitive soul of the boy thus :—"One day his father falls into a rage with the slaves of the

¹³ Young—*Tour of Ireland*.

¹⁴ Morley—*Recollections*, Vol. I.

¹⁵ Quoted in Conway's *Labour in Ireland*.

household. His anger concentrates on poor Makar, the piano-tuner and sub-butler. He takes his seat at the table and writes a note, 'Take Makar with this note to the police station and let a hundred lashes with the birch rod be given to him'. Terror falls on the child. He is suffocated with tears, and later in the day in a dark passage he awaits the return of Makar, who comes with pale, distorted face. The child tries to kiss his hand, but Makar tears it away and says, 'Let me alone? you, too, when you are grown up, will you not be just the same?' 'No, no, never'; cries the child."¹⁶

This is how the ruling classes of Russia demoralised the people and crushed all spirit out of them.

The people of Bengal were also ill-treated and at last answered to the description of Edwin Markham's 'The man with the Hoe'

" Bowed by the weight of centuries, he bans
Upon his hoe and gazes on the ground,
The emptiness of ages in his face
And on his back the burden of the world.
Who made him dead to rapture and despair,
A thing that grieves not and never hopes
Stolid and stunned . . . "

Years had rolled on creating conditions pregnant with poignant possibilities. The Moslems had refused to shake hands with the Hindus over the bloody chasm of religious hatred and landlordism had brought about pauperism. Organised opposition to oppression was far from possible because of communal, social and economic differences between powerful interests—individual and communal.

There are some who hold that the cult of Vaishnavism as preached by Chaitanya—a cult which practically swept over the greater part of the peninsula—had the effect of Bengalis becoming resigned to fate and replaced militarism by love. Bengal Vaishnavism has its characteristics. As Bipin Chandra Pal in his 'Bengal Vaishnavism' has put it, according to this Vaishnavism—"God is not an abstraction; nor a philosophical generalisation of human experience." "Bhagaban is a concrete reality, a person. The concept personality implies differentiation and duality."¹⁷ But it is above all a cult of love. As Bipin Chandra has explained—"The gospel of Shree Krishna as delivered by Shree Chaitanya Mahaprabhu is the gospel of Universal Humanity, that knows no distinction between Brahmin and Chandala

¹⁶ Gardiner—*Pillars of Society*.

¹⁷ Bipin Chandra Pal—*Bengal Vaishnavism*.

or between Aryan and non-Aryan or between Hindu and non-Hindu. In him are all races one ; all religions one ; all cults and cultures one, that lead under different names and through different forms and formularies ultimate to the perfection of our common humanity."

But this lofty idea was difficult to maintain in its purity. "The cultivation of the love of God through the love and service of man and the realisation of God in every human being, which has been the very soul of Bengal Vaishnavism, was consequently lost in the revival of Brahminical supernaturalism, symbolism and caste-laws. The superb humanism of the gospel of Shree Chaitanya Mahaprabhu and its message of the equality of man, built upon his fundamental divinity, was thus overwhelmed by the spirit of mediaeval Brahminism with its excessive emphasis on what may be called Subjective Idealism, and even the new Vaishnavic culture came to be dominated by an unreal and subjective emotionalism." ¹⁸

By the time the British came to India to play their part on the political stage the change described above had been complete, and the adoration of the Krishna-cult in place of the Sakti-cult that made the people accept the theory that salvation could be had merely by uttering the name of God in one incarnation was in vogue. It made the once martial Bengalis averse to resistance—as it is said to have reduced the martial races of Orissa into servile slavishness. According to Bankim Chandra the Bengal Vaishnavism of Chaitanya was very different from the original Vaishnavism and was a product of the mixture of the dross of Buddhist atheism with the old Vaishnavism which advocated the adoration of activism—not its rejection. ¹⁹

Bengalis had been cultivating that class of mind which shrinks from aggressiveness as if it were a sin. As Aurobindo has put it, those who cultivate this mentality fall from a high ideal :—

"Their temperament forbids them to feel the delight of battle and they look on what they cannot understand as something monstrous and sinful. 'Heal hate by love', 'drive out injustice by justice' 'slay sin by righteousness' is their cry. Love is a sacred name, but it is easier to speak of love than to love. The love which drives out hate is a divine quality of which only one man in a thousand is capable. A saint full of love for all mankind possesses it, a philanthropist consumed with a desire to heal the miseries of the race

¹⁸ *Ibid.*

¹⁹ See *Arundha Math.*

possesses it, but the mass of mankind does not and cannot rise to the height. Politics is concerned with masses of mankind and not with individuals. To ask masses of mankind to act as saints, to rise to the height of divine love and practise it in relation to their adversaries or oppressors is to ignore human nature. It is to set a premium on injustice and violence by paralysing the hand of the deliverer when raised to strike. The *Gita* is the best answer to those who shrink from battle as a sin, and aggression as a lowering of morality.”²⁰

Politics is the ideal of the Kshatriya, and the morality of the Kshatriya—on which the politics of the Brahmanical duty of saintly sufferance should not be imposed, must govern political actions. This truth the Bengalis had been losing sight of because of divisions, dissensions and degradation. The new realisation came many years later—“Our attitude is a political Vedantism. India, free, one and indivisible, is the divine realisation to which we move, emancipation our aim; to that end each nation must practise the political creed which is the most suited to its temperament and circumstances; for that is the best for it which leads most surely and completely to national liberty and national self-realisation.”²¹

India—even Bengal—was divided into sects, sections, coteries and communities creating heterogeneous hordes which only the magic touch of realisation of nationalism could convert into a homogeneous whole. The process of unification which brought about the realisation that even good government cannot be a substitute for self-government had not come at the time the British gained supremacy though the people of Bengal had to support them the memories of the past, the needs of the present and the hopes of the future.

Indeed Bengal lay prostrate at the feet of the conquerer who took full advantage of her weakness born of disunion. What added to that weakness was a combination of a false conception of the virtues of weakness created by a false interpretation of the teaching of religion, a distressing drifting from the old moorings and a sense of helplessness. Though on previous occasions she had rapidly recovered from the ravages of scarcity which could hardly assume the alarming proportion of famine Bengal could not recover her previous plenty after the man-made famine of 1770. Outsiders had to be invited to till the land and reap the harvest; the rich betrayed the poor and wanted to grow richer at the expense of the impecunious; life, limb

²⁰ Aurobindo—*The Doctrine of Passive Resistance*.

²¹ *Ibid.*

and property were in constant danger; the gloom of ignorance thickened on the people; old highways fell into disrepair; old water-channels got silted up; old salutary customs were being abandoned; old conditions were undergoing unwanted change. And the foreigner—wanted to squeeze out as much as he could from the land and the teeming millions who inhabited it. The heavy hand of the oppressor was being constantly used for the benefit of the rulers who were not only birds of passage but also of prey.

The exactions of the English proved for the people of Bengal the proverbial last straw that breaks the camel's back. In the Fifth Report of the Select Committee of the British House of Commons and its appendix ²² it is stated that the settlement of Bengal, in Akbar's time (1582) by Raja Tadar Mull or Tury Mull—that is the revenue settled on the lands, and called the Tamar Jamma, or standard assessment, amounted to Rs. 10,093,152. According to Shore this standard assessment was "calculated to give the sovereign a proportion of the advantages arising from extended cultivation and increased population". To this standard assessment successive Moslem Viceroyas added *Abwab Subadary* or Viceroyal imposts.²³ The additions were as follows :—

In 1658 some few lands were added, and the revenue was raised by Sultan Suja, but chiefly by means of additional imposts called Abwabs to	... Rs. 13,115,907.
In 1722 Murshid Kuli raised it by additional imposts to	... Rs. 14,547,043.
In 1728 it was raised by Suja Khan to	... Rs. 16,418,513.
In 1755 Ali Vardi raised it to	... Rs. 18,644,067.
In 1763 Mir Kashim, by additions, raised it to	... Rs. 25,624,223.

As has been said Shore called Kashim Ali's assessment was a "pillage and rack rent". But on succeeding to the Moslem possessions the English adopted for their own collection the assessment of Kashim Ali (*i.e.* Mir Kashim).

"When the advice of the Dewanee grant first reached England, the most extravagant expectations of its advantages were entertained by the proprietors of India stock, and by the public at large. His Majesty's Government even were infected with the same conceits; and at first demanded the revenues of the fertile countries for the

²² Vide Shore's Minute of June, 1789.

²³ We have on record at least 14 kinds of Abwabs from *Chauth Marhatta* (the Marhatta Fourth) to *Mqthot Peelkhana*, (to defray the expense incurred on elephants).

crown. To meet the expectations of Government, a strong party of Proprietors in Leadenhall Street proposed that, out of the surplus receipts from Bengal £ 900,000 per annum should be paid into the exchequer, and the proprietors be allowed a dividend of 14 per cent, for fifty years. On another occasion they are said to have conceived that a dividend of 50 per cent. was less than might be expected from the value of their present possessions".²⁴

Thus the impositions of Murshid Kuli, of Suja Khan and of Allivardly amounted to 33 per cent. of the standard assessment of 1658. These were added to by the Zemindars and the amount according to Shore could not have been less than 50 per cent. for "exclusive of what they collected for the Nazim a fund was required for their subsistence and emoluments which they of course exacted". Shore referred to the particulars of the collection of a Dinajapoor farmer and found that it "exhibited a list of petty articles, exceeding 200, in their very nature extortionate and oppressive, and such as neither could nor ought to become sources of revenue"—*Vide Shore's Minute* (Appendix, Fifth Report, page 175).

The views of the Court of Directors were more moderate. Negotiations were opened and after a long time the arrangement with Government for paying £ 400,000 per annum was completed and agreed to be extended for seven years.

But the proprietors had already secured to themselves a dividend of 10 per cent. "To meet this and the other demands on their treasury, the Directors had no recourse left but to apply the funds of their sovereignty in aid of their commerce. The investments of goods from India were accordingly ordered to be increased from £ 350,000 to £ 800,000 per annum; and as the Company's necessities in England prevented their sending out the usual supplies of bullion to China, these supplies, to the extent at this time, of £ 300,000 per annum, were also furnished from the surplus revenue of Bengal".²⁵

According to Verelst Bengal was thus drained, in the five years succeeding the Dewanee Grant of £ 4,941, 011.²⁶

Truly did Hastings remark "The Company still receive the greatest part of their investment virtually for nothing—not as the return for commerce, but as a tribute".²⁷

²⁴ Rickards—*India*.

²⁵ Rickards—*India*.

²⁶ *State of Bengal*:

²⁷ *Review*.

The drain on Bengal continued unabated, the usual influx was materially checked and Verelst computed that from these two causes, the tribute money remitted to the Moghul Emperor and the specie carried off by Mir Kashim ... no less than a sum than £ 13,000,000 was drained in twelve years, from the silver currency of Bengal.²⁸

The situation was thus described by Verelst in his *State of Bengal*:—

“The too eager desire of Parliament and the proprietors of India, stock to derive immediate advantage from the acquisitions of the Company gave birth to many evils which a wiser policy, and a more temperate conduct at home, might have prevented.... This cause precluded all innovations in the management of the revenues, perpetuating those abuses which, derived from a remote antiquity, had grown to an enormous size under the government of successive Subadbars. Ruinous as these were to the industries of the natives, the impatient demand upon Bengal, as an inexhaustible mine of wealth, superadded many other causes of decline to those which already oppressed the laborious inhabitants. Each year brought orders from Europe to enlarge the Company's investments, while complaints were at the same time received of the increasing price of manufactures, which a competition between the French, Dutch, and English necessarily occasioned”.

Such was the distressing condition of Bengal when the century which had been crowded with events, and changes drew at last to a close.

Merciless exaction by the English was not the only ill that preyed upon the people. Cruelty and unscrupulousness were the weapons offensive and defensive of the English in India. It would appear that those virtues which are usually called Christian they left behind when they started for India bidding adieu to their native shore—fading over the waters blue. We have shown how Hastings ordered, with impunity, that every convicted dacoit should be executed in all the forms and terrors of the law in his native village—his whole family should be made slaves and all his co-villagers should be fined. How the spirit that impelled Hastings to pass such a cruel order hovered over his countrymen in India would be clear from the action of Major Munro who in 1764 after he had quelled the first Sepoy Mutiny ordered twenty-four of the ring-leaders to be blown from guns—an act of cruelty which was common after the Sepoy Munity of 1857 and which was characterised as “an old Mughal punishment”.²⁹

²⁸ Mr. Kashim is said to have carried off treasures worth 5 crores of rupees.

²⁹ Hunter—*A Brief History of the Indian Peoples*.

The execution of Nand Kumar affords an example of the executive and the judiciary being in league to perpetrate an injustice. As Macaulay had pointed out Sir Elziah Impey the Chief-Justice of the Supreme Court was an old acquaintance of Hastings ; and "it is probable that the Governor-General, if he had searched through all the inns of court, could not have found an equally serviceable tool"³⁰ Nand Kumar "charged the Governor-General with various acts of fraud, corruption, and oppression—Hastings was openly accused of taking bribes from the Manni Begam, of sharing in the plunder amassed by Reza Khan, and of procuring that officer's acquittal in return for another large bribe". That was on the 11th March, 1775. The Council found Hastings guilty and ordered him to repay £35,000 which he had taken as bribes from the Begam. Hastings did not obey the order of the Council. On the 6th May following Nand Kumar was charged before the Magistrate of Calcutta with having used a forged bond. Nand Kumar was arrested and tried by a Court of four judges, headed by Impey. The trial lasted from the 8th June to the 16th when Nand Kumar was convicted to death.

Burke was definite that Hastings had murdered Nand Kumar by the hands of Sir Elziah Impey and Macaulay who branded Impey with the foul name of Jeffreys was sure that Hastings was "the real mover in the business."

In his elaborate essay on Warren Hastings Macaulay said :—

(1) "That Impey ought to have respited Nand Kumar, we hold to be perfectly clear. Whether the whole proceedings were not illegal, is a question. But it is certain that, whatever may have been, according to technical rules of construction, the effect of the statute under which the trial took place, it was most unjust to hang a Hindoo for forgery. The Law which made forgery capital was passed without the smallest reference to the state of society in India. It was unknown to the natives of India. It had never been put in execution among them, certainly not for want of delinquents. It was in the highest degree shocking to all their notions. They were not accustomed to the distinction which many circumstances, peculiar to our own state of society, have led us to make between forgery and other kinds of cheating....A just judge would, beyond all doubt, have reserved the case for the consideration of the sovereign. . But Impey would not hear of mercy or delay."

(2) "Of Impey's conduct it is impossible to speak too severely. We have already said that, in our opinion, he acted unjustly in refusing

³⁰ Macaulay—*Essay on Warren Hastings*.

to respite Nancomar. No rational man can doubt that he took this course in order to gratify the Governor-General. If we had even had any doubts on that point, they would have been dispelled by a letter which Mr. Gleig has published. Hastings, three or four years later, described Impey as the man 'to whose support he was at one time indebted for the safety of his fortune, honour and reputation'. These strong words can refer only to the case of Nancomar and they must mean that Impey hanged Nancomar in order to support Hastings. It is, therefore, our deliberate opinion that Impey, sitting as a judge, put a man unjustly to death in order to serve a political purpose."

English writers headed by Sir J. Stephen have attempted to combat this view clearly expressed by Macaulay, but their partisan proclivities have failed to achieve their end and absolve Impey of the infamous guilt of injustice—though as a judge he was expected to hold the balance even and consider as dust in the balance his personal friendship for Hastings.

The last word was said by Beveridge who has characterised the case of Nanda Kumar as a 'judicial murder.'³¹

From what Macaulay has written and Beveridge has proved it would appear that neither Hastings nor Impey suffered from any kind of conscientious scruple. The unholy combination of Hastings and Impey which brought about the debacle in the case of Nanda Kumar—his death and destruction—manifested itself in bringing about the ruin of James Augustus Hicky the publisher and editor of the first newspaper published in India—the *Bengal Gazette*—better known as *Hicky's Gazette* "a weekly political and commercial paper open to all parties, but influenced by none". Hicky trod upon Hastings' corn when he published in his paper the secret arrangement by which the wife of the German of the name of Imhoff—a lady with whom Hastings had been living in open adultery for a long time—was to become the wedded wife to the Governor. That was the real gravamen, though not the formal, which weighed with Hastings and his friend Impey.

We quote the following from Macaulay's essay:—

At last... "arrived the news that after a suit which had lasted several years, the Fanconian courts had decreed a divorce between Imhoff and his wife. The Baron left Calcutta, carrying with him the means of buying an estate in Saxony. The lady became Mrs. Hastings. The event was celebrated by great festivities; and all the most conspicuous persons in Calcutta, without distinction of parties,

³¹ Beveridge—*Trial of Nand Kumar*.

were invited to the Government-house. Clevering, as the Mahammeden chronicler tells the story, was sick in mind and body, and excused himself from joining the splendid assembly. But Hastings whom, as it should seem, success in ambition and in love had put into high good-humour, would take no denial. He went himself to the General's house, and at length brought his vanquished rival in triumph to the gay circle, which surrounded the bride. The exertion was too much for a frame broken by mortification as well as by disease. Clevering died a few days later."

Autocratic tyrants cannot tolerate criticism. In handing down the unanimous decision of the court in a case (*City of Chicago vs. Tribune Co.*, April, 1923) Chief Justice Thompson of Illinois remarked :—

"The struggle for freedom of speech has marched hand in hand in the advance of civilization with the struggle for other great human liberties. History teaches that human liberty cannot be secured unless there is freedom to express grievances. As civilization advanced and the means for expressing grievances multiplied, the struggle between the people and their despotic rulers became more bitter. With the opening of the seventeenth century the people began to publish newspapers, and history begins to record unspeakable prosecution of the editors."³²

"When printing-presses were brought to England, towards the end of the fifteenth century their operation was placed under license by that father of administrative tyrannies, the Star Chamber."

"In the reign of James I., newspapers were established in England under great tyranny and abuse. Unlicensed printers and violators of the censorship were punished with the cropping of their ears, slitting of their tongues, and hanging."

The tyranny grew worse under Charles I., until the Revolution, when the king was beheaded and the Star Chamber was abolished.

But the Long Parliament, although it overthrew the king, immediately enacted a licensing law to control the press in its own interest. Then it was that Milton wrote the famous essay, *Areopagitica*, expounding the freedom of the press, in which he cried, "Give me liberty to know, to utter, and to argue freely according to conscience, above all liberties."

The Levellers petitioned the Long Parliament (January 10, 1649) thus—"And if you and your army shall be pleased to look back a little upon affairs you will find you have been much strengthened all along by unlicensed printing..." But their views did not prevail.

“After the restoration of Charles II, Parliament renewed licensing again until the year 1679, when it refused to re-enact the law. Thereupon, Chief Justice Scrogg, one of the evil names in judicial history, invented the theory that the King had the common law right of licensing and declared it a criminal act^o to publish without the royal consent.”

James II, persuaded his Parliament to renew the Licensing Act and it was renewed from time to time until 1694 when it was not reenacted. Of this occasion Macaulay said :

“The Commons came to a vote which has done more for liberty and for civilization than the Great Charter or the Bill of Rights.”

From that time to this, no English government has claimed or practised the right to license.

During the period from 1760 to 1789 there were many and terrible persecutions in England. And Lord Mansfield laid down the theory that the jury was concerned only with the fact of publication. The Fox Libel Act passed in 1792 gave the jury full jurisdiction to pass on libel. Then it was that Sheridan thundered.

“Give me but the liberty of the press and I will give to the minister a venal house of peers, I will give him a corrupt and servile House of Commons, I will give him the full swing of the patronage of office, I will give him the whole host of ministerial influence, I will give him all the power that place can confer upon him, to purchase up submission and overawe resistance ; and yet, armed with the liberty of the press, I will go forth to meet him, undismayed, I will attack, the mighty fabric of that mightier engine, I will shake down from its height corruption and bury it beneath the ruins of the abuses it was meant to shelter.”

When the attitude of those in power in England was so unjustly hostile to a free press no wonder the English in India sought and used every weapon to kill liberty with a view to stop criticism.

They had ready the mighty weapon of deportation without trial which they used relentlessly. In 1768 William Bolts proposed to set up a printing press in Calcutta, and before the proposal could materialise the Select Committee of the Council at Fort William directed him “to quit Bengal and proceed to Madras on the first ship that shall sail from that Presidency in order to takē his passage from thence to Europe.”

In 1791 William Duane was arrested by the Bengal Government and ordered to be sent to Europe for some paragraphs in the *Bengal Journal*.

It has been said that Hicky's paper was full of insinuations and innuendoes and filthy writing. But he was catering for a society, corrupt to the core and newspapers—like literature—can thrive only by conforming to the taste of those who pay for them. Even in 1818 James Silk Buckingham of the *Calcutta Journal*, conducted with ability, was ordered to quit Bengal.

The reason was apparent. It was a policy of stifling criticism and make tyranny safe—to protect the unscrupulous administrators and the vampires who were by exploiting the resources of the people, sucking up their life-blood.

Such was the condition of Bengal and her teeming millions when nature was busy obliterating the scars of the famine and the British were strengtning the foundations of their Empire which was built on fraud and forgery and cruelty. The people were under the heels of the tyrant and groaning under the weight of a corrupt administration.

Reviews and Notices of Books

Trends in Economic Thinking—By Santi Kumar Ghosh (Published by the author, 15 Mahendra Road, Calcutta, 1953. pp. 57. Price Rs. 2 only).

The purpose of this book, Professor Ghosh explains in the preface, is simply to make available in a brief manner the recent trends in economic thinking and to appraise their significance. The book was conceived not as an authoritative pronouncement but as a contribution to some of the recent theoretical studies in economics. The author has written in a mood of high seriousness, and his views command respect. The book includes many penetrating observations, on contemporary economic thought, which resulted from the discussions which the author had with Prof. P. Chakrabarty, Head of the Planning Division, Indian Statistical Institute.

The Chapter on "The Theory of Consumption" is illuminating but it is incomplete because a full appraisal of Duesenberry-Modigliani hypothesis, concerning Consumer behaviour, is not made. The Chapter on "Uncertainty and Profits" is perhaps too short—here a bridge could have been easily built which would have connected the author's view with the epoch-making discovery of Prof Keirstead in the field of profit theory. The last chapter on trade Cycle is perhaps the longest and the best in the book. It gives an excellent, analytical resume of the multiplier and accelerator mechanisms for explaining the phenomenon of trade cycle. But the author should not have ended only with the trade cycle discussion, he should have shown the connection between the trend and the cycle and should have thrown some light on growth economics.

The reader should be warned against sundry petty carelessness of the proof-reader—perhaps the book was published in a hurry. A renowned publisher and a better press should have been chosen. Despite these minor blemishes, the book as a whole contains abundant proof of conscientious scholarship and clear exposition and certainly deserves a second, revised and enlarged edition.

ALOK GHOSH

The Way To Ilala : David Livingstone's Pilgrimage.—Frank Debenham. Longmans Green and Company, 1955. Price 25 s. pp. 327.

Ilala, situated south of the swamps of Lake Bangweulu in Northern Rhodesia, marks the realm where David Livingstone spent the last days of his life. The Way To Ilala is a biographical account of David Livingstone's journeys and explorations in the Dark Continent from 1841 to 1874.

It is a rather original biography, especially as it is written by a geographer who also has been an explorer. Frank Debenham, Professor of Geography at the University of Cambridge, had accompanied Scott and Wilson in the Antarctic, and later had covered the arid plains of Bechuanaland and the marshy territory in the Bangweulu area. It is therefore why we can trace throughout this record, a directness of narration, sympathy and an appreciation of the wanderings of that first white Christian who helped to put Africa on the map.

Professor Debenham takes us through the early years of Livingstone in African territory—a period of 'apprenticeship' to the life of a pioneer. We have here a faithful rendering of the journeys with Oswell in the Kalahari of Ngamiland and across the fringes of the Equatorial Congo forests to Loanda; of the second expedition along the Zambesi, up the Shire Valley to Nyasaland in the company of Doctor Kirk and Charles Livingstone; of the third expedition across the heart of Africa via the Rovuma river to Lakes Tangyanika, Mweru and Bangweulu; of the historic meeting between Stanley and Livingstone and their journey together to Unyanyembe; to the last years, tragic in despondency and frustration, where we find him obsessed with the age-old problem of the Nile, to flounder and die in the swamps of the Bangweulu. The narrative deals with these many journeyings as one long pilgrimage of a Christian spirit, stalwart and unwavering, in a land uncharted and wild. There is resemblance in several places to the account of Bunyan of the adventures of Christian in *Pilgrim's Progress*.

It is through this unvarnished and undisguised recital, that Livingstone emerges as a geographer. Herein lies the distinctive character of this particular biography. Here is David Livingstone—the missionary-doctor—as a man of diverse interests and possessing a naturally exploratory and precise mind. His astronomical calculations of latitude and longitude, the precision of his mapping, as seen in the numerous facsimile reproductions, and his detailed field notes, have contributed to the opening of a continent in the 19th century which was hitherto unknown, and placing it on the modern map.

The numerous other sketches and several interesting asides about the local chiefs of the time and the ways of living among the natives, also have made the book stimulating. Professor Debenham has written a fine book, which though lacking in a certain romantic appeal, is nevertheless an interesting and authentic memoir of Livingstone as the pilgrim, the explorer and the geographer.

M. GUHA.

The Good Administrator—Sardar Vallabhbhai Patel Lecture delivered by C. Rajagopalachari on August 14, 1955. The Publications Division, Government of India. Price As. 4. pp. 20.

In this inaugural address broadcast by the all-india Radio, Sree Rajagopalachari describes some of the qualities essential for a good administrator. The ability to judge quickly and to act in time are as important as the capacity of making one's colleagues feel that they have a social purpose when they are carrying out a certain policy of the government.

The pamphlet will prove useful and stimulating to those who are interested in the question.

N. K. BOSE

Songs of Human Co-operation : By Kalipada Bhattacharjee ; Published by Manasbani, Rajpur, 1955 ; Price Rs. 2.

Humanitarianism and internationalism have been quite successful themes in the hands of great Poets, when such abstract ideas have been given the beauty of concrete forms by creative imagination. Even polemics lent tolerable subjects to poets from Dryden to T. S. Eliot. But when plain panegyric barrows the Muse's garb under a solemn solicitude for world peace, the result is clean wash-out. Sree Nehru's advocacy of peaceful co-existence of peoples professing apparently conflicting ideologies is the obvious subject-matter of this song of praise coming from a remote rural corner of West Bengal. To the poet *Panch Shila* is just a step to the grand vision of "a well-ordered World State,"

There is none of that process of transmutation of the intractable experiences of modern life, as discerned in the experiments of poets of the present generation. Hardly any poetic flavour can be traced in

"to establish and maintain peace
as an integral part of the economic
and political life of the people,
both national and international."

In spite of the ring of sincerity one does not feel inspired by eulogies like

"Long live
Sri Jawaharlal Nehru,
whose life is the combination
of the greatest virtues,
greatest self-resistance,
greatest welfare,
greatest love,
greatest sacrifice,
greatest power,
greatest happiness,
greatest truth,
and greatest knowledge
of humanity."

Genuine gems of poetry with true feeling clothed in fresh imagery are rare :

“The old weapons will be melted down
to make farming tools.”

The pieces are composed in free verse with smoothness of rhythm, but without subtlety and vigour characterizing maturity of style and metre.

K. LAHIRI

Ourselfes

DEATH OF SHRI K. D. GHOSH

Death occurred in Calcutta in the month of April of Shri K. D. Ghosh, M.A. (Oxon.), Barrister-at-Law. Shri Ghosh was intimately connected with our University in its various departments for many years. He had a brilliant academic career in this University and he subsequently became graduate of Oxford University where he studied at Orient College. He also qualified himself for a legal career being called to the Bar from Lincoln's Inn. He was President of Oxford Majlis for a term. On his return to India, he took up an educational career and served the cause of education in Bengal in various capacities. He became the Principal of David Hare Training College and also a Member of the Senate and Syndicate of this University for several years. He was a man of great personal charm. In his death, West Bengal has lost a valuable and devoted worker whose affable temperament endeared him to all. We offer our sincerest condolences to the bereaved family.

SPECIAL UNIVERSITY CONVOCATION AT BANKURA CHRISTIAN COLLEGE

The Calcutta University for the first time in its history held a Convocation outside Calcutta. This Convocation was held on the 17th April in a district town of West Bengal, at Bankura Christian College Hall. The occasion was the conferment of the honorary degree of Doctor of Literature on the 97-year-old Scholar of Bengal, Shri Jogesh Chandra Ray, Vidyanidhi. A large number of distinguished people from different parts of West Bengal including Members of the Senate, Syndicate and the Academic Council of the University were present. The Governor of West Bengal, Dr. H. C. Mookerjee, who is also the Chancellor of the University, went personally to Bankura to do honour to this old and veteran scholar. He bestowed the honorary degree of Doctor of Literature on Shri Jogesh Chandra Ray. In his Convocation Address, Professor Nirmalkumar Sidhanta, the Vice-Chancellor, said that Acharyya Jogesh Chandra belonged to a generation of teachers who lived for their students and whose greatest satisfaction was in building up generations of young citizens, strong with gifts received from the educator. While performing these duties in the most adequate fashion, Acharyya Jogesh Chandra was

continually engaged in his researches which embraced the whole domain of knowledge in so far as they were scientific, antiquarian and literary. In honouring this devoted scholar the Vice-Chancellor said, "the University has honoured itself."

ALL-INDIA LIBRARY CONFERENCE IN CALCUTTA

After 23 years, The All-India Library Conference met this year in the month of April in Calcutta. The Conference was inaugurated by Dr. H. C. Mookerjee, the Governor of West Bengal, and Professor N. K. Sidhanta, the Vice-Chancellor of the University, acted as the Chairman of the Reception Committee. The object of the Conference this year, as outlined by Professor Sidhanta, was to offer advice to different states and the public, not only regarding the importance of libraries, which had already been recognised, but also how the library movement could be put to the best use for the country's advancement, particularly when it was to spend a large amount of money during the Second Five-Year Plan period as part of the movement for the spread of education. The success of social education in rural areas, Professor Sidhanta further said, depended to a large extent on the vitality of the Library movement, which had to be maintained by continuous supply of books in the villages if the enthusiasm of the people in the rural areas was not to languish. This is a thoughtful advice, and it is urgently necessary that the Library movement in India should be utilised as a means of social education all over the country. In the new context democracy and adult suffrage in our land, it is very necessary to educate our masters.



Notifications

Modified Syllabus in Mathematics for Intermediate, B.A. and B.Sc. Examinations

INTERMEDIATE EXAMINATION

PAPER I

Algebra—36 marks

Logarithms. Complex numbers—Geometrical representation of a complex number. Quadratic equations, simultaneous equations in two unknowns, one of which is quadratic and the other linear. Theory of Quadratic Equations and Expressions. Permutation and Combination. Binomial Theorem for positive integral index.

Finite geometric series. Infinite geometric series and the concept of its convergence. Acquaintance with and direct application of infinite Binomial Series (proof not required). The number e defined as an infinite series. Use of the series for e^x and $\log e$. $(1+x)$ and their direct application (The proofs of the expansions are not required). Acquaintance with the graphs of x^n (n a positive integer), $\log x$, and e^x .

Trigonometry—28 marks

Measurement of Angles. Trigonometric ratios and their graphs. Elementary Trigonometrical formulae. Trigonometric ratios of associated angles. Summation Theorems. Transformation of products and sums. Multiple and sub-multiple angles. Trigonometric Equations and General values. Inverse Circular Functions.

Relation between sides and angles of a triangle. In-radius, circum-radius and area of a triangle. Practical solution of triangles using log tables. Simple problems in heights and distances.

Co-ordinate Geometry—36 marks

Rectangular Cartesian coordinates in a plane. Lengths of segments. Section of a finite segment in a given ratio. Area of a triangle.

Straight line. Circle : chords, tangents, normals and elementary properties connected with them. Parabola, Ellipse, Hyperbola referred to their principal axes: analytical treatment of these curves in respect of (1) the focus and directrix properties, (2) tangents and normals, and elementary properties connected with them, (3) centre, and diameter.

Students will be expected to have an idea of the following solids: cube (including parallelism and perpendicularity of the planes and lines in the cube), rectangular parallelepiped, right prism, right circular cylinder, right circular cone, square and triangular pyramids, sphere. Expressions (without proof) of the surfaces and volumes of the solids mentioned above.

INTERMEDIATE EXAMINATION

PAPER II

Calculus—30 marks

All basic ideas are to be introduced only by geometrical illustrations as far as possible.

Elementary idea of limit through the use of geometry and simple algebraic functions. Gradient of a curve. Simple illustrations.

Derivative and its meaning. Derivative of x^n (n rational), $\sin x$, $\cos x$.

Differentiation of sum, product and quotient of functions. Differentiation of function of a function. Application of these to the above functions.

Meaning of the sign of the derivative. Application to simple question on maxima and minima.

Integration of expressions formed by the sum of terms of the type x^n ($n-1$), $\sin x$, $\cos x$ (Integration by parts is excluded).

Elementary notion of Integral as an area. Evaluation of area in simple cases.

Statics—35 marks

Composition and resolution of forces in a plane; Equilibrium of coplanar forces acting at a point. Moment of a force. Parallel forces. Couples. Frictional forces. Conditions of equilibrium of a rigid body under a system of coplanar forces. Centre of gravity of a system of particles on a straight line and in a plane. Centre of gravity of a homogeneous rod, triangle, parallelogram and circle. Levers and systems of pulleys.

Dynamics—35 marks

Kinematics : Displacement, velocity, acceleration. Velocity and acceleration as derivatives. Uniform motion, uniformly accelerated linear motion. Composition and resolution of displacements, velocities and accelerations. Relative velocity. Uniform circular motion.

Laws of motion. Units of force. Simple illustrations of Newton's laws, projectiles, motion of a particle on an inclined plane, motion of two particles connected by a string.

Work, Energy and Power. Momentum, Impulsive force. Principles of Energy and Momentum and their simple applications. Use of Calculus is permitted.

B.A. AND B.Sc. PASS COURSE

PAPER I

Algebra—45 marks

Polynomials, Division Algorithm, Fundamental Theorem of Algebra (proof not required) and its immediate consequences. Relation between roots and co-efficients. Descartes' Rule of signs. Location of a root by change of sign of the polynomial.

Sequence. Limit. Acquaintance with the principle of monotonic sequences as regards convergence or divergence (no proof required). Applications. Infinite series, convergence of infinite series with constant terms.

Determinants of second and third order. Linear transformations. Matrices—Addition, Multiplication and Inverse. Simple application to linear equations—Cramer's rule. (All these relate to not more than three variables)

Analytical Geometry—55 marks

Vectors : Addition, Scalar and Vector products. Simple applications.

(In two dimensions)—Transformation of rectangular axes. Pairs of straight lines. System of co-axial circles. General equation of the second degree :—Metric classification of conics. Tangents. Normals, Conjugate diameters. Pole and polar. Asymptotes. Polar co-ordinates.

(In three dimensions)—Rectangular Cartesian co-ordinates. Plane, straight line, sphere. Ellipsoid, Circular cones and cylinders, paraboloids and hyperboloids referred to their principal axes. Tangent planes and normals. Polar and Cylindrical co-ordinates.

PAPER II

Differential and Integral Calculus—100 marks

Functions, limits of functions. Continuous functions. Acquaintance with fundamental properties of continuous functions (no proof required). Inverse functions.

Derivative. Local behaviour of a function, Rolle's Theorem. Mean-value Theorem. Differential. Fundamental rules of differentiation. Standard forms.

Successive differentiation, Leibniz's Theorem.

Taylor's and Maclaurin's Theorem with Cauchy's and Lagrange's form of the remainder. Taylor series for e^x , $\log_e (1+x)$, $(1+x)^n$, $\sin x$, $\cos x$ and other simple functions, with discussion of convergence.

Applications of the Mean-value Theorem and Taylor's Theorem : Maxima and Minima. Indeterminate forms.

Indefinite integral. Elementary concept and properties of definite integrals. Geometrical interpretation of a definite integral. Fundamental Theorem connecting

indefinite and definite integrals. Rules of integration. Standard forms. Certain definite integrals, viz.,

$$\int_0^{\pi/2} \sin^n x dx, \quad \int_0^{\pi/2} \cos^n x dx, \quad \int_0^{\pi/2} \sin^n x \cos^n x dx$$

(m and n being positive integers), and $\int_0^{\infty} e^{-x^2} dx$

Simpson's one-third rule for numerical evaluation of definite integrals.

Power series : Convergence, continuity, term-by-term differentiability and integrability, uniqueness.

Functions of several variables. Geometric notion of continuity. Successive derivatives. Commutative property of partial derivatives (statement of a set of sufficient conditions without proof). An example showing that the partial derivatives are not always commutative. Total differential. Euler's Theorem regarding homogeneous functions. Acquaintance with rule for differentiation of implicit functions (no proof required).

Applications to plane curves :—Tangents and normals. Rectilinear asymptotes. Curvature. Expression for radius of curvature in Cartesian and parametric forms. Circle and centre of curvature. Point of inflexion.

Tracing of the following well-known curves :—Catenary, Folium of Descartes, Lemniscate of Bernoulli. Cardioid, Cycloid.

Rectification. Quadrature.

Calculation of volumes, moments of inertia and positions of the centres of gravity of bodies.

Complex variable : DeMoivre's Theorem. Exponential, sine, cosine and logarithm of a complex number.

Differential Equations :

Genesis of a differential equation. Family of curves represented by $y' = f(x, y)$. Graphical construction of solutions by the method of isoclines. Solution of 1st order differential equations. Evaluation of special solution passing through a given point (x_0, y_0) .

Higher order linear differential equations with constant co-efficients both homogeneous and non-homogeneous. Evaluation of special solutions for given x_0, y_0, y'_0 .

Simple applications to Geometry.

PAPER III

Analytical Dynamics—50 marks

Rectilinear motion under constant and variable accelerations. Simple harmonic motion. Damped and forced linear oscillation. Accelerated motion in two dimensions, in Cartesian and Polar co-ordinates. Laws of motion. Central orbits under the inverse square law. Kepler's laws.

Astronomy—50 marks

Circles on the sphere. The spherical triangle. Celestial sphere. Astronomical systems of measurements of position on the celestial sphere. The celestial globe.

Apparent diurnal rotation of the stellar system. Sidereal and solar times. Nautical almanac.

The observatory. The Astronomical clock; the chronometer. Astronomical telescope. Observation with Transit circle. The Equatorial Telescope. Photographic Telescope. The Sextant. Clock correction.

Simple diagrams showing the positions and motions of heavenly bodies on the celestial sphere.

Astronomical Refraction. Its measurement and consequences.

Determination of latitude, time and longitude on the earth and the azimuth, declination and R.A. of heavenly bodies.

Earth as an astronomical body. Diurnal rotation. Figure of the Earth. Dip of the Horizon. Geodetic survey. Triangulation, Mass and average density. Internal constitution. Earth's atmosphere. Twilight. Age of the Earth.

Apparent motion of the Sun in the ecliptic. Earth's annual motion round the Sun. The variation in the length of the day. The seasons, Tropical, Sidereal, Anomalistic and Civil years. The Calendar.

Solar times, Mean Sun. Equation of Time. Conversion of Solar and sidereal times. Mean Time. Standard Time. The date line.

The planets : Bode's law. Elongation. Direct and retrograde motion of planets. Stationary points. The periods. Kepler's Laws. General notion about the rotation. and Physical condition of the planets. The satellites of planets. Comets and Meteors.

The apparent motion of the Moon. The phases. Albedo. The month. Synodic motion. The orbit of the Moon. The nodes and their motion. Retardation. Rotation of the Moon. Libration. Telescopic appearance and physical features of the Moon.

The Eclipses of the Sun and the Moon.

Motion of the First point of Aries. Precession of the equinoxes. Various effects of Precession and Nutation. Dynamical causes of Precession and Nutation. The gyro-compass.

Geocentric parallax and the Sun and the Moon. Measurement of the Astronomical Unit distance from observations. Measurement of the distance of the Moon.

Annual parallax of stars and its use in measurement of Stellar distances, Parsec and Light year.

The stars. Magnitude of stars. Descriptive motions of Double stars, Giant and Dwarf stars, Star Clusters and Nebulas. Sun as a star. Sunspots.

B.A. AND B.Sc. HONOURS

PAPER I

Algebra and Elementary Vector Analysis

Algebra—70 marks

Partitions, Multinomial Theorem

Elements of Theory of Probability

Simple continued fractions

Inequalities

Polynomials

Relation between roots and coefficients of a polynomial

Symmetric functions of roots

Binomial and Reciprocal Equations

Location of roots : Budan, Fourier and Sturm's Theorems

Descartes' rule of signs

Horner's method of calculation of roots

Tartaglia's solution of the Cubic and Ferrari's solution of the Biquadratic equations

Linear Transformations

Determinants

Matrices : Addition and Multiplication of Matrices, Inverse of a matrix

Linear dependence, Rank of a matrix

Solution of linear equations with not more than three unknowns

Orthogonal transformation in three variables

Vector Analysis—30 marks

Addition and Multiplication of Vectors

Differentiation and Integration of vectors with respect to a parameter

Simple applications to Geometry and Mechanics.

PAPER II

Analytical Geometry of Two and Three Dimensions

Analytical Geometry of Two Dimensions—50 marks

In addition to a fuller treatment of the pass course the following—

Rigid motions

Cross-ratio of four points and lines. Twenty-four cross-ratios of four elements. Harmonic division of points and lines. Simple applications of cross-ratio and harmonic division. Complete quadrangle and quadrilateral.

Invariance of cross-ratios in projections and sections. Point and line at infinity. Desargues' theorem on triangles. Principle of Duality and its application to Desargues' theorem and to complete quadrangle and quadrilateral.

Homogeneous Cartesian co-ordinates. Homogeneous line co-ordinates. Analytic duality between points and lines.

Projectivity of ranges of points and pencils of lines

Collineation

Projective generation of conics. Theorems of Pascal and Pappus
N.B.—Introduction of concepts and simple illustrations and applications rather than any exhaustive treatment is intended in the above syllabus.

Analytical Geometry of Three Dimensions—50 marks

In addition to a fuller treatment of the pass course the following—

Transformation of rectangular axes. Invariants. Principal-axis transformation of a quadratic form (in three variables). Complete discussion of the general equation of the second degree in rectangular Cartesian co-ordinates.

Conjugate diameters and diametral planes.

Generating lines and plane sections of quadrics (normal forms).

PAPER III

Elementary Analysis

Rational and real numbers; Dedekind section; Theory of limits; Aggregates, Infinite sequences, Upper and Lower bounds.

Bolzano—Weierstrass Principle of accumulation. General principle of convergence.

Infinite series of constant terms. Absolute and conditional convergence Tests of convergence.

Continuous real variable; continuity of a function of one variable, properties of continuous functions.

Derivatives and differentials, Meaning of the sign of the derivative at a point. Rolle's Theorem, Mean-value Theorem, Cauchy's Mean-value Theorem. Fundamental Rules of differentiation. Standard forms. Successive differentiation. Leibniz' Theorem,

Taylor and Maclaurin developments with remainder after n terms. Taylor series. Taylor series for such functions as $(1+x)^m \log$, $(1+x)$, e^x , $\sin x$, $\cos x$. Maxima and minima of functions of one variable.

Indeterminate forms.

Riemann Integration of a bounded function. Integrability of continuous functions. Elementary properties of a definite integral. The first and second Mean-value Theorems for integrals. Indefinite integration, primitives. Fundamental Theorem of the Integral Calculus connecting definite integrals with primitives. Standard rules of integration. Standard forms. Formulae of reduction. Simple cases of definite integrals. Simpson's One-third rule for numerical evaluation of integrals.

Power series; Continuity, Differentiability, Integrability and Uniqueness of power series. Addition, Subtraction and Multiplication of power series. Infinite products for $\sin x$, $\cos x$.

Improper integrals: Elementary tests of their convergence. Beta and Gamma functions and their elementary properties. Evaluation of the following standard infinite integrals.

$$\int_0^{\pi/2} \log \sin x dx, \int_0^{\infty} \frac{x^a}{1+x} dx, (0 < a < 1), \int_0^{\infty} e^{-x^2} dx$$

and integrals directly dependent on them.

Statement (no proof required) of Fourier Theorem (Dirichlet conditions) Calculation of Fourier Coefficients.

Complex number. De Moivre's Theorem. Definition and elementary properties of e^z , $\sin z$, $\cos z$, $\log z$ for complex values of the argument.

Paper IV

Functions of several variables. Applications of Analysis.

Differential Equations.

Functions of several variables—80 marks—

Functions of two or more variables and their continuity. Simple properties of continuous functions of two variables (no proof required), Partial derivatives and differentials. Differentiability of functions. Total differential. Commutative property of the order of partial derivatives (Schwarz). Euler's Theorem on homogeneous functions. Theorem of implicit functions (no proof required) and differentiation of implicit functions. Change of variables.

Taylor and Maclaurin developments with remainder after a term for two or more variables, maxima and minima of functions of two or more variables, Lagrange multipliers.

Multiple integrals. Elementary treatment of reduction of multiple integrals to repeated integrals.

Applications of Analysis—30 marks.

Tangents, Normals. Rectilinear Asymptotes. Curvature. Envelopes. Singular points, cusps, nodes and points of inflexion; Multiple points. simple curve tracing.

Rectification, Quadrature, Calculation of volumes.

Calculation of moments of inertia centre of gravity and centre of pressure.

Differential Equations—40 marks—

In addition to a fuller treatment of the pass course the following :—

Linear differential equations of the first and second orders involving two variables only and equations reducible to linear forms.

Paper V

ANALYTICAL STATICS AND DYNAMICS

Analytical Statics—40 marks—

General conditions of equilibrium of coplanar forces acting on a point and on a rigid body. Action of frictional forces.

Equilibrium of rods and struts. Graphical statics.

Principle of Virtual work. Simple cases of Stability under coplanar forces.

Centre of mass.

Simple cases of equilibrium of flexible inextensible strings.

Dynamics—60 marks—

Dynamics of a particle : (Two dimensional)—

Velocity, acceleration

Laws of motion

Rectilinear, parabolic, circular and harmonic motion

Damped and forced harmonic motion

Plane constrained motions

Impulsive Forces

Work and energy

Central orbits (excluding disturbed orbits,

Dynamics of a system of particles and of a rigid body : (Two dimensional)

Motion of a system of particles. D'Alembert's Principle

Principles of Energy and Momentum

Moment of Inertia

Motions of a rigid body (finite and impulsive)

Principles of Energy and Momentum, their simple applications

Motion about a fixed axis. Compound pendulum

Paper VI

(a) Astronomy ... 60 marks

(b) Either Hydrostatics or Mathematical Theory of Probability 40 "

(a) Astronomy—

In addition to a fuller treatment of the pass course the following—

Elements of the orbit of a Planet. Astronomical Aberration. Description of the surface phenomena of the Sun. Solar atmosphere, (descriptive treatment).

N.B.—Candidates will be expected to possess an elementary knowledge of Spherical Trigonometry and to apply it to the discussion of simple problems of Astronomy.

(b), Hydrostatics—

Equilibrium of fluids under general forces, with special reference to equilibrium under gravity. Application to fluids and gases obeying perfect gas law. Pumps

Equilibrium of floating bodies and analytical discussion of stability of floating bodies in simple cases.

Simple cases of small oscillations of floating bodies.

Mathematical Theory of Probability—

Concept of mathematical probability. Total and compound probability. Bernoullian Trials. Bernoulli's Limit Theorem. Mathematical expectation. Continuous probability.

Concept of a distribution. Binomial and Poisson distributions. Normal distribution.

Elementary theory of errors of observation.

Normal Law of errors. Law of error in a linear function.
Measures of precision. Principle of Least squares.

LIST OF BOOKS

No books are recommended. The following list of books is given to indicate approximately the scope of the syllabus. (A reference to a chapter or an article means a reference to the relevant portion thereof).

INTERMEDIATE

Paper I

Algebra—As at present except that the 'proofs' of infinite Binomial series and of the Exponential and Logarithmic series are excluded.

Trigonometry—As at present with somewhat less stress on identities.

Co-ordinate Geometry—Fawdry—Co-ordinate Geometry Chap. I-VIII excluding Determinants.

Solid figures—As at present.

Paper II

Calculus :—Hunter—Groundwork of Calculus. Chapters I-VII, IX and X,

Statics :—As at present with reduced treatment of machines and friction.

Dynamics :—As at present omitting collision of elastic bodies.

B.A. AND B.Sc. PASS-COURSE

Paper I

Algebra :—Smith—Algebra Chapter XXXII (Arts. 435-437, 454-459, 461).

Ferrer—Algebra (Determinants and Matrices, etc.).

Chapter I (Arts 1-4). Chapter II Arts 1-5 (for 3rd order Determinants only).

Chapter III Arts 1-4 (for 3rd order Determinants only).

Chapter VI.

Durell—Advanced Algebra Vol. I—Chs VIII and IX.

Sequences and Infinite Series—The scope is well covered by the relevant articles of B. S. Ray—Differential Calculus.

Vectors :—Weather—Elementary Vector Analysis Chaps. I, II, III, Arts 24-29, 33, 34, 39, 40, Ch. IV 42-44, 48, 52.

Geometry—The scope is well covered by Eisenhart—Co-ordinate Geometry. Arts 1-45 together with.

Loney—Co-ordinate Geometry—Arts 182-193 and 375-385.

PAPER II

Differential and Integral Calculus—

The scope is well covered by

B. S. Ray

... Differential Calculus

B. C. Das

... Integral Calculus

Lamb

... Infinitesimal Calculus

Differential Equations—

The scope is approximately the same as at present. For the method of Isoclines reference may be made to—

Relton

... Applied Differential Equations Ch. VIII

Levy and Baggot

... Numerical Studies in Differential Equations, Vol. I, Ch. I—pp. 9-34.

Complex Numbers &c.

The relevant sections of any book on Higher Trigonometry such as Das & Mukherjee—Higher Trigonometry.

PAPER III

Analytical Dynamics—

Loney—Dynamics of a particle &c. Chs. I-III.

Ch. IV, Arts.—49, 50 and 53-55, 57.

Ch. V, Arts.—65-74. Ch. VIII. Arts. 117-123.

Astronomy—Relevant portion of the syllabus as discussed in Barlow and Bryan—Elementary Mathematical Astronomy. 5th Edition.

Revised by H. Spencer Jones (1950) Chs. I-VII, Ch. IX, Ch. X, Secs. 1, 2. Ch. XI, Ch. XII, Secs. 1, 2.

Ch. XIII-XVI excluding all portions involving the use of Spherical Trigonometry.

together with H. Spencer Jones—General Astronomy 2nd edition (1946). Arts. 21, 100-102, 189, 192, 207-208, 217, 256-269.

B.A. AND B.Sc. HONOURS COURSE

In addition to the books referred to for the Pass Course, the following :—

PAPER I

Algebra—Smith—Algebra, Ch. XXVI, Ch. XXVII (Arts. 369, 370 to be omitted), Ch. XXX Arts. 405-11. Ch. XXXII:

Ferrar—Algebra (Determinate and Matrices and C) Chs. I-III, Ch. V, Ch. VI-VIII, Ch. X. Arts. 1-4. Ch. XIII Art. 1 (for three variables only).

Durell and Robson—Advanced Algebra Vols. I-III (Relevant portions).

Vector Analysis—

Weatherburn—Elementary Vector Analysis

Ch. I-V, Ch. VI, Art. 65-79

Ch. VII, Art. 82-84

PAPER II

Plane Geometry—

Graustein—Higher Geometry, Ch. II-VII, Ch. XV, Arts. 1-7

Geometry of Three dimensions

Smith—Solid Geometry, Ch. I, Ch. II, Arts. 13-35, 44-48, Ch. III-VI

Albert—Solid Analytic Geometry, Ch. VI, pp. 96-102, Ch. VII (pp. 103-122)

PAPER III

Relevant portions of the syllabus as discussed in—

Hardy	... A course of Pure Mathematics
Gibson	... Elementary Treatises on Calculus
McRobert and Arthur.	... Trigonometry, Part II, Ch. XIV
	Trigonometry, Part III, Ch. XX
Phillips	... A course of Analysis—Ch. V only
Courant	... Differential and Integral Calculus, Vol. I
Dutta and Mitra	... Differential Calculus
Durell and Robson	... Advanced Algebra, Vol. II, Ch. XIV
Mahajani	... Elementary Lessons in Analysis

PAPER IV

Relevant portions of the syllabus as discussed in—

Courant	... Differential and Integral Calculus, Vol. I
Gibson	... Elementary Treatise on Calculus
Dutt and Mitra	... Differential Calculus
Murray	... Differential Equations
Piaggio	... Differential Equations

PAPER V

Statics—

Ramsey—Statics. Chs. I-VI, Ch. VIII, Ch. X Arts. 10.1. and 10.4 Ch. XI, Ch. XII (Omitting Arts. 12.6—12.7)

Loney—Treatise on Statics— Chs. I-VI, Ch. VIII, Arts. 134, 135, 139-142, Ch. IX, Arts. 154-160, Ch. XIII, Arts. 250-259, 263-270.

Dynamics—

Ramsey—Dynamics, Part I. Chs. IV-XIV, Ch. XV (omitting Arts. 15.54—15.8)

Loney—Dynamics of a Particle etc.

Chs. I-IV, Ch. V (omitting Arts. 84-86)

Ch. VI, Ch. VII (omitting Arts. III)

Ch. VIII (omitting Art. 124)

Ch. XI (Arts. 144-151, Ch. XII, Ch. XIII Arts. 168-179, 181-182)

Ch. XIV Arts. 187, 190-192 (omitting articles 197-203)

Ch. XV Art. 204

Ch. XVII Arts. 235-236, 238, 239, 242 (so far as they are related to two dimensional motion)

PAPER VI

Astronomy—

Relevant portions of the Syllabus as discussed in
Barlow and Bryan—Elementary Mathematical Astronomy. Revised by
Spencer Jones, 5th edition (1950)

In addition to the topics mentioned in the Pass Syllabus the following :—
Ch. XIII and Ch. XVII

and

H. Spencer Jones—General Astronomy, 2nd edition (1946) Art. 130
Students should be expected to make use of simple Spherical Trigonometry
for proofs and discussions wherever necessary.

Hydrostatics—

Relevant portions of the syllabus as discussed in—

Ramsey—Hydrostatics

together with

Basant and Ramsey—Hydromechanics, Part I (8th edition)

Ch. VI, Arts. 106, 107 (pp. 109-11) only

Mathematical Theory of Probability—

Plummer—Probability and Frequency, Ch. I (omitting Arts. 55-62), Ch. II
(omitting Art. 118), Ch. III Arts. 123-173

Levy and Roth—Elements of Probability—

Ch. I 2. Ch. V, VI, Ch. VIII (omitting pp. 137-140), Ch. IX
pp. 169-171.

"CALCUTTA UNIVERSITY

Notice

NC/11205/4A

Senate House, the 12th April, 1956

It is notified for general information that Swarnendubikas Kanungo (Reg. No. 11879 of 1939-40), son of late Ananta Bandhu Kanungo has been debarred from appearing at any University examination for a period of five years for having tampered with University documents.

D. CHAKRAVARTI,
Registrar.
Calcutta University"

CALCUTTA UNIVERSITY

Notification No. C/2021/108 (Aff.)

Dated 12th March, 1956.

It is hereby notified for general information that under sub-section (1) of Section 2 of the First Statutes of the University of Calcutta, relating to the 'Affiliation of Colleges', the Chancellor has been pleased to approve of the recommendation of the Syndicate that the Chittaranjan Seva Sadan be recognised as an affiliated College for the training of students for the D.G.O. course.

By order of the Vice-Chancellor and Syndicate

D. CHAKRAVARTI,
Registrar.

CALCUTTA UNIVERSITY

Notification No. CSR/4/56

It is notified for general information that the following changes in Chapter XL-F (Diploma in Librarianship) of the Regulations, as adopted by the Academic Council on 30th March, 1955 were accepted by the Senate on 10th December, 1955 :—

"(A) In Regulation 7 (p. 113) the word 'Languages' under Item (7) be replaced by the word 'Language'.

(B) In the same Regulation the portion beginning with 'Any two of the following languages.....and ending in "(e) Greek"' be replaced by the following :—

'Any one of the following languages other than the candidate's mother-tongue is to be offered :—

(1) German, (2) French, (3) Russian. (4) Hindi.'

(C) The present Regulation 8 be replaced by the following :—

'A candidate obtaining 40 per cent. or more of the total number of marks will be considered to have passed the examination in the 3rd class, one obtaining 50 per cent. or more of the total number of marks will be considered to have passed the examination in the 2nd class and a candidate obtaining 60 per cent. or more of the total number of marks will be considered to have the examination in the 1st class.

The changes will take effect from the examination of 1956.

Senate House,
The 31st January, 1956.

D. CHAKRAVARTI,
Registrar.

CALCUTTA UNIVERSITY

Notification No CSR/5/56

It is notified for general information that the Board of Under-Graduate Studies in Music at their meeting held on 10th September, 1955, corrected the following printing mistakes in the Regulations relating to I. Mus. Examination (Chapter LIV of the Regulations).

(i) Under Paper II, (i) Theory of Raga the word 'etc.' after "Anubadi", be deleted and further the words "Kala" "Angopadhanya" also be deleted.

(ii) (a) In the same para. before "Notation" and (5); after "notation" in the para following the words "with knowledge of the following three systems of Notations" be corrected to "Knowledge of the following three North Indian systems of Notation".

(b) The word Akshara Matrik be corrected to Akara Matrik.

(iii) The Paragraph under practical be reprinted as follows—200 marks.

"In the Practical Examination no question will be asked on the Theoretical aspect of Music."

(IV) Under Papers, V and VI, "Classical music—Vocal or Instrumental," the correction is to be made as follows :—

"Classical Music (Hindusthani or North Indian only)—Vocal or Instrumental."

(VI) Under (1) Classical Music—Vocal (Practical) 200 marks, in the number of songs in different styles to be learnt, the words "14 Thumris" be corrected to "4 Thumris".

(VII) Under (ii) Alternative—Classical Music Instrumental ... 200 marks

in the para. following correct the last sentence as follows :—

"Besides Alap in any 10 that Ragas (Bhatkhandha system) out of the 20 Ragas as prescribed for Classical Music (Vocal above)."

(VIII) Under (v) Instrumental Music, Paper I and Paper II be corrected to Paper IX and Paper "X" respectively.

(IX) Under Paper IX as corrected, correct Para. (3) as follows :—

"Ten Alaps of the Ragas, besides the Ten that Ragas (Bhatkhandha System) learnt in the compulsory courses which comprise twenty Ragas".

Under Paper (X) as corrected the word "Med" be corrected to "Mid", and "Jhunker" to "Jhanker".

Senate House,
The 23rd February, 1956

D. CHAKRAVARTI,
Registrar.

COUNCIL OF UNIVERSITY COLLEGE OF ARTS CALCUTTA UNIVERSITY

NOTICE

M.A. Examination, 1957

List of Text Books in English

Paper III (b)

Burke's 'Reflections on the French Revolution' has been prescribed as an alternative to Dr. Johnson's 'Lives of the Poets', as one of the text books for the M.A. Examination in English for 1957.

Asutosh Building,
The 27th April, 1956

G. C. ROYCHAUDHURI,
Secretary.

COUNCIL OF UNIVERSITY COLLEGE OF ARTS CALCUTTA UNIVERSITY

NOTICE

M.A. Examination, 1956

List of Text Books in English (Group A)

Paper—V—second half

Mathew Arnold's 'Essays in criticism' has been prescribed as an alternative to Pater's 'Appreciations' as one of the Text Books for the M.A. Examination in English for 1956.

Asutosh Building,
29th February, 1956.

G. C. ROYCHAUDHURI,
Secretary.



THE CALCUTTA REVIEW

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MAY, 1956

[No. 2

MOHENJO DARO CIVILIZATION

BASANTAKUMAR CHATTOPADHYAY

Two seals of characteristically Mohenjo Daro type have been found in the towns Ur and Kish of Mesopotamia from which there can be no doubt that their date is 2800 B.C. (Mohenjo Daro and Indus Valley Civilization by Marshall, Vol. I, pp. 103-104). Altogether 16 seals have been found in Ur and 14 in Kish and other places, 30 seals in all. Besides these seals there are also other indications of intercourse between India and Mesopotamia, e.g., broken portions of earthen jars, toilet sets, horns on the head of human figures, trefoil decoration on cloth, beads, covers of jars etc. (Marshall, pp. 104-105).

The following verses are found in the Vedas :—"Vishnu traversed the world in order to give dwelling place to his followers. He gave Urukshiti to them" (Rig Veda Samhita 7-100-4). "Oh Soma, flow for Indra, Varuna and Vayu. Let our wealth remain intact. Let the devas (or Aryans?) assemble in Urukshiti hearing the sound of your sacrifice" (RVS 9-84-1) "Oh fire, blaze in your glory and burn the Rakshashas in the houses in Uru" (Uru-kshaya=house in Uru, Kshaya=house) RVS 10-118-8) "The dwellers of Uru worshipped you who are the most worshipful with hymns of praise" (RVS 10-118-9). The names Ur and Kish in ancient Mesopotamia are clearly corruptions of the word Uru-Kshiti. From Uru to Ur and from Kshiti to Kishiti (it is easier to pronounce Kishiti than Kshiti) and from Kishiti to Kish are very natural transformations. Not only the names Ur and Kish but also the names Uru, Uruk, Urkashade occur in ancient Mesopotamia (*vide* Maspero, The Struggle of Nations, Index). All these words are undoubtedly variations of the word Urukshiti. Sayana explains the words Urukshiti and Urukshaya as 'extensive land' and

“big houses”. He apparently did not know that there was a place Urukshiti in Mesopotamia, where, as we now find from the seals and other objects, the Vedic Aryans established a colony. Even in Vedic poems the name Urukshiti was shortened to Uru. Sayana’s explanation of Urukshaya, viz., big house is not happy. Its rendering as houses in Uru or dwellers of Uru would be more appropriate in the context. From the statement that Vishnu gave Urukshiti to his followers which has been explained by Sayana to mean that Vishnu took it from the *asuras* and gave it to the *devas* and from the fact that Indian seals of 2500 B.C. have been found in Uru and Kish it is clear that the Vedic Aryans established a colony in Mesopotamia in that early date. From the statement that Vishnu traversed the World before he gave Urukshiti, it should be inferred that Urukshiti was far away from the Punjab as Mesopotamia really is. Further, there are signs that in 2300 B.C. an Indo-European race, Luites, penetrated into Asia Minor. They were followed by the Hittites who in 1900 B.C. established a ruling caste (Ancient History of Western Asia—India and Crete by Hronzy, Chap. XIII). In 1600 B.C. an Indo-European ruling caste established itself in Babylonia and ruled for 500 years (Pigott, Prehistoric India, p. 250). In 1500 B.C. and 1400 B.C. many kings with Aryan names are found among Mitannus. In the well-known treaty among the Hittites and Mitannus (1380 B.C.) the Vedic Gods Indra, Varuna, Mitra and Nasatyas (the twin Aswini Kumaras) are invoked. Many words of Sanskrit origin are found in Hittite language (Hronzy’s book, p. 116). A treatise on horse-racing has been found in the Hittite records using nearly Sanskrit terms *aikavartanna* (one turn) *teravartanna* (three turns), *panjavartanna* (five turns), *Sattavartanna* (seven turns) (Pigott’s book, p. 251). “In the state of Mitannu there were obviously Indian inhabitants (Hronzy’s book, p. 112). Hronzy’s theory that the first Indo-European immigrants came from Central Asia is not based on any definite proof and must be discarded in view of the definite statement in RVS 7-100-4 quoted above, that Vedic Aryans came and settled in Mesopotamia. The colonization of Mesopotamia by the Vedic Aryans referred to in RVS 7-100-4 must refer to the earliest appearance of the Indo-Europeans in Mesopotamia. As observed before the Aryans are for the first time found in Asia Minor in 2300 B.C. The seals of Mohenjodaro type found in Asia Minor and Mesopotamia in the neighbourhood of 2300 B.C. must therefore be connected with the advent of the Vedic Aryans. Now it is well-known that all the Mohenjodaro seals found in Mesopotamia although belonging to various dates from 2300 B.C. to 1500 B.C. (according to

Wheeler) are of the same type. It cannot be that some seals relate to pre-Vedic civilization and some to Vedic civilization. Hence all these seals relate to Vedic culture. There can therefore be hardly any doubt that the Mohenjodaro civilization was Vedic civilization and not any pre-Vedic non-Aryan civilization. The fact that the people of Mohenjodaro worshipped Siva confirms the theory that there was Vedic civilization at Mohenjodaro. For Siva was undoubtedly a Vedic God. Although in the Vedas the name Rudra is generally found, the name Siva is also met with (e.g. RVS 10-92-9 and Suklayajurveda Samhita 16-41). In the 16th Chapter of Sukla-Yajurveda it is said that Rudra wields the *pinaka* (Siva's bow), has matted locks, wears the skin of animals and has a blue throat,—unmistakeable signs that Rudra is identical with Siva. The Vedas no doubt condemn *Sisnadevas*. But this term refers to those who are too much addicted to sexual pleasures as explained by Yaska and Sayana. It does not refer to the worshippers of Siva linga. Srikara in his commentary on Brahmasutra quotes RVS 5-3-3 which according to him shows that Vishnu worshipped Sivalinga. Sankara was a profound Vedic scholar and a strict follower of the Vedas. He would not have worshipped Sivalinga if it had been prohibited in the Vedas. The bull is closely associated with Siva and is prominently represented in Mohenjo Daro. In the well-known figure on a seal identified with Siva (Marshall's book, Plate XII, figure 17) the hands of the God are covered with bracelets. In Suklayajurveda 16-17 Rudra is called *hiranyabahu* (with golden hands) which has been explained by the commentator to mean that his hands are covered with golden ornaments. As regards the horns on the head of the figure the Vedas refer to the Supreme Deity as possessing four horns (RVS 4-58-3). It may be observed that in Mesopotamia also gods are represented as human figures with horns. The idea of the gods having horns is therefore of Vedic origin and is found both in Mohenjo Daro and Mesopotamia. As regards the cult of the Mother Goddess in Mohenjo Daro, in the Vedas the Supreme Deity is sometimes addressed in the feminine gender, e.g., RVS 10-125, RVS 10-127, RVS 7-15-5. The archaeologists Marshall, Wheeler and Pigott have taken 1500 B.C. as the date of the Vedas and the advent of the Aryans. But Winternitz says in the history of Sanskrit Literature, Vol. I, that Buhler has convincingly proved that the Vedas cannot be so late as 1500 B.C. Winternitz has given weighty arguments to show that the date of the Vedas should be taken as 2500 B.C. If the date given by Winternitz is taken then from the date of the Mohenjo Daro Seals (2500 B.C. to 1500 B.C.) it is clear that they belong to Vedic

culture. It may also be observed that Tilak and Jacobi by independent calculations of astronomical events mentioned in the Rig-Veda Samhita, have arrived at the same conclusion, *viz.*, that the Rig-Veda was composed in 4500 B.C. No defect in these calculations has been exposed. If the date given by Tilak and Jacobi is followed Mohenjo Daro was undoubtedly a city of Vedic culture.

What about the towns destroyed by the Aryans as stated in the Rig-Veda? It is found in the Vedas that these towns belonged to the Asuras who used to attack the Vedic Aryans. Thus the Aryan chief Divodasa was attacked by the *asura* Sambara. Out of fear Divodasa was going to "enter water". The twin gods Asvinikumar saved Divodasa by killing Sambara (RVS 1-112-14). In other verses it is said that Sambara was chased by Indra who along with Visnu destroyed one hundred towns of Sambara. Sambara took refuge on the hills where he hid himself for forty years. Ultimately Sambara was captured by Indra and killed on a big mountain (RVS 2-12-11 and 7-18-20). It seems that the asura Sambara first took the offensive. It does not appear that the invading Aryans without any provocation destroyed the forts of the native chief and killed him. It does not also appear that the Aryans came down from the hills on the North-West of India and attacked the non-Aryans. As observed before, Sambara fled to the hills and was killed there. It is also stated in RVS 3-53-11 that Indra killed the Asuras on the East, West and North. If the Aryans were coming down from the North-West Indra would have killed the asuras on the East and South, but not to the West and North. This passage would indicate that the Aryans living in the Punjab were attacked by the dasyus from the West, the North and the East (the Himalayas) but not from the South. The mention of the sea (Samudra) in many places in the Rig-Veda Samhita shows that the Aryans who composed the Rig-Veda did not come from Central Asia and that their territories extended to the seashore. Sambara seems to have had his fortresses in the mountains of the West. Just as in historic times the Hindus were attacked from the North-West by the Sakas, the Huns, the Pathans, the Moguls, and the Persians, so it may be presumed that in pre-historic times also (in the time of Vedas) the Aryans were attacked by aggressive races from the North-West. The Aryans vigorously repulsed these attacks, carried the war to the enemies' territories and destroyed their fortified towns which were apparently outside India. The territories of the Vedic Aryans probably included portion of Afganistan. The followers of Ahura Mazda might have been called asuras in the Vedas. It is stated in the Zind Avesta

16th Session of All-India History Congress that Mohenjo Daro was a big town, 3 or 4 miles in Circuit, and containing at least a lac of inhabitants; if there had been a general massacre, as stated by Wheeler, thousands of skeletons would have been found; whereas only 30 skeletons have been found; these men might have been killed by robbers at the time of a stampede when the town was flooded. The Aryans also had towns like the non-Aryans. In RVS 7-3-7 prayer is offered to the God Agni to protect the worshippers with hundreds of towns. In RVS 7-15-14 the God Agni is asked to protect the worshippers like a big town (Satabhuji=very wide). In RVS 8-100-8 it is stated that the bird Garuda crossed a town made of iron on his way to heaven where he gave the Soma to Indra. In RVS 10-101-8 the priests are asked to construct towns of iron which cannot be conquered. The state of civilization depicted in the Vedas is sufficiently advanced to enable us to presume that there were towns. Many rishis might have been living in the villages or hermitages. At the same time kings and artisans must have lived in the towns Silver coins are referred to in RVS 5-23-6, golden coins in 5-27-2. There are also references to various kinds of ornaments, weapons, armour, chariot and musical instruments. In RVS 6-44-24 a fountain with ten apertures is mentioned. There are several references to iron. RVS 2-15-5 refers to the construction of bridges over rivers. RVS 2-15-6 refers to the diversion of the course of rivers. All this indicates a high stage of civilization and it is not reasonable to conclude that although they were so highly civilized they did not know how to construct towns. The references to towns mentioned above show that towns did exist.

Marshall in the Mohenjo Daro and Indus Valley Civilization (Vol. 1 p. 111) gives some reasons why he thinks that Mohenjo Daro is earlier than the Vedas. The only important reasons given by him are that the Vedas mention the horse and iron which have not been found in Mohenjo Daro. Other reasons given by him are of flimsy nature (*e.g.* Mohenjo Daro people worshipped the bull but in the Vedas the cow is worshipped). As regards the horse Pigott writing later says that the horse has been found in Mohenjo Daro (Prehistoric India p. 157). There remains iron. It may be that iron was smelted elsewhere, not at Mohenjo Daro or iron might have corroded and disappeared here. Marshall says that iron occurs in the Atharva Veda but not in Rig Veda. (Vol. I p. 110) In that case it should be concluded that Mohenjo Daro was earlier than the Atharva Veda, but not earlier than the Rig Veda.

ACTOR COLLABORATORS AND AUDIENCE OF SHAKESPEARE

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In a short one-act play called *Rehearsal*, a contemporary dramatist has given us an interesting and imaginary picture of the rehearsal of a Shakespearean play and shows how the actors are suggesting improvements on the manuscript of the great writer who accepts their suggestions and adds to and alters the text. The MSS of Shakespeare's plays have all disappeared. Had they existed they would have thrown a lot of light on this aspect of the composition of the plays. Gordon Craig believes that the dramas were finally composed by Shakespeare in collaboration with the manager of the theatre and with the actors, and he thinks that "a glimpse of the manuscript of the plays would reveal a mass of corrections, additions and cuts made in several hand-writings".¹ And Craig is so confident that he thinks there were three stages of the composition. In the first, the plays were sketched out; in the second, they were rehearsed and here the changes were made from day to day; in the third the plays were handed over for revision before being printed.² The statement may appear very sweeping. But great drama grows up always in the hurly-burly of the stage. Only the anaemic closet dramas have grown up beyond its pale, and the dramatist who is always supercilious—and even Shaw is not above this weakness—thinks himself above the inert and stifling atmosphere of the stage and its uncultured actors. Where there is an active collaboration between dramatist and actors, we find the finest dramas growing up in the fullest freedom in spite of the limitations of the stage. This was true in Greece, Rome, France, Spain, England, Russia and India.

IS THERE ANY PROOF TO SUBSTANTIATE THE STATEMENT?

First, there is every reason to show that the stage version and the printed version were different. It is known that actors often added to, and altered the first draft—particularly comic actors of the Elizabethan age did so. Shakespeare took exception to it in *Hamlet* when he spoke through Hamlet, "Let those that play your downs

¹ The Theatre Advancing, p. 132.

² *Ibid*, p. 132.

speak no more than is set down for them: for there be of them, that will themselves laugh to set on some barren spectators to laugh too: though in the meantime some necessary question of the play be then to be considered: that's villainous and shows a most pitiful ambition in the fool that uses it." Here is one instance where the fool would have his capers. There are other instances where we find that the acting version was actually sent to the press, and Shakespeare forgot to give his final touch to the play. The example is *Much Ado About Nothing* where in the stage direction we find the mention of one character who has no part on the stage; also the name of the actor in place of the character he represents is found in the same play. These instances do not certainly prove that there was a co-operation between players and actors in the writing, yet they show that plays were changed added and altered with reference to the requirements of the stage. Craig points out that if we are to find the difference between the stage version and the printed version, we have to compare the First Quarto of Hamlet with the Second Quarto—"The 1603 version reads like a stage play and the 1604 version like a literary play. It has been polished for the reader" ¹.

Secondly, can it be believed that actors can contribute to the material structure of the play? To the ineffable beauty and imaginative fervour which we find in the poetic presentation of a superbly subtle character as in the greatest tragedies the actors certainly did not contribute anything. But other aspects of his plays—their witticism, topical allusions, the grossness, the popular appeal and the healthy naturalness of the play were certainly the master's concessions to the actors and the groundlings. The Frank cynicism of Enobarbus, the banality of the Nurse of Juliet, the drinking songs, the vulgar atmosphere in *Measure for Measure*, *Troilus and Cressida* are things which the players and the audience forced upon Shakespeare. Indelicate hints are to be found in Shakespeare, but women's parts being taken by boys, nobody felt any scruple about these vulgarities. So must the actors have demanded songs and quips and cranks, verbal sallies and very often sheer feast of words where there was no reason. These we think came at the rehearsal stage and Shakespeare must have been immensely pleased with them and accepted them with a relish. Such a thing was quite natural and was found in the commedia delle arte of Italy. The remarks were not written, but were supplied by the witty imagination of the actors on the spur of the moment. They were spontaneous, natural.

¹ *Ibid*, p. 132. See also p. 151 of *Introducing Shakespeare* by G. B. Harrison.

They appealed instantly, like the repartee of the peasant. This naturalness of touch was introduced by Shakespeare in the word-gymnastics between Rosaline and Berowne, the rapier play of wit between Benedick and Beatrice, the fooley Dogberry and Verges, the wit combat of Touchstone and Rosalind; the drollery in Stephano and Trinculo, Lancelot Gobbo and old Gobbo, Simple, Slender, Sir Ioby Belch, Sir Andrew Aguecheek and a whole host of humorous characters. What life, what verve and pure nonsense, and what assumed seriousness of the confirmed dullards and their quaint conversations!

Here is myriad-mindedness, and the brains of dozens must have contributed to it, the chance inspiration of the moment must have gone to enrich and give colour and life to a vast world. And Craig is certainly right when he points out that the secret of this genius baffles us, and "it does not seem to us possible that the brain of one man, be he Shakespeare, Bacon, or another, can have achieved such an overwhelming contradiction."¹

There are reasons to suppose that the dramas even in their final form were not the product of Shakespeare's brain entirely. It will not do to suppose that the faults of art or taste, "the obscurities or the distortions of language" were all products of his 'writing down.' Nor can we safely suppose that what seems to us feeble or bad seemed so to Shakespeare." In this connection Dr. Bradley points out that we have positive grounds of the strongest kind for believing that Shakespeare's plays contain a good deal that Shakespeare never wrote. We cannot therefore simply take it for granted that he wrote every silly or offensive thing that we find in the volume; and least of all should we do this when the passage is more or less irrelevant and particularly easy to excise."² This warning from Bradley supports what Gordon Ceaig in his erratic way points out. This is useful, as many scholars suppose that the text was published by the dramatist or by "scrupulously careful men of letters immediately after his death." Henslowe's *Diary* shows in drama after drama that different authors were engaged in writing the same play in works of collaboration or revision.

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There are critics who believe that in writing for the Globe Theatre, Shakespeare's 'great soul had to crush itself, as best as it

¹ *Ibid.* p. 142.

² *Oxford Lectures on Poetry*, p. 366.

could, into that and no other mould.' The true Shakespeare is more of a poet with an infinity of suggestions for a sympathetic reader. This is the trend of Logan Pearsall Smith's view put forward in his 'wise and witty book', *On Reading Shakespeare*, and he is supported by Saintsbury and Nicol and Carlyle and Robert Bridges. So before discussing the part of actors in influencing Shakespeare dramas, we ought to consider to what extent his plays were conditioned and limited by his "writing down to his audience, in the sense of giving it what he despised." We know that Ben Jonson who loved Shakespeare and honoured his memory on this side of idolatry was still of opinion and believed that he condescended to his audience. We know further that Webster who loved him grouped him "with Dekker and Heywood and mentions him after Chapman, Jonson, and Beaumont and Fletcher" in his preface to the *White Devil*.¹ To this we may add what Shakespeare thought his art did for him :

The guilty Goddess of my harmful deeds,
That did not better for my life provide,
Than public means, which public manners breeds;
Thence comes it that my name receives a brand.

There are critics who commiserate Shakespeare on an uncultured audience, rough, brutal, vulgar, blood-thirsty, obstreperous with a love of fun, hilarity, ribaldry, swords-play 'shews' rant, jokes, dances and irrelevant songs. They argue that wherever these things appear, certainly the art of Shakespeare has been considerably affected. As an actor he certainly knew that he must please the patrons to live and that drama's laws drama's patrons give. It may well be that had the audience been more elegant and accomplished, certainly his plays would have been more graceful in order to satisfy the purer taste of the fastidious critics. But that would mean a different society and a different age altogether, and how can we think of a Shakespeare in an alien age? Shakespeare wrote most of his plays for the audience of the Globe and a few for the audience at the Black-Friars. There is a difference in the conception and execution in respect of these groups—difference in style, dialogue, and the character of the plays, and we should remember here what Granville-Barker says in this connection—"The dating of texts and their ascription to the usages of a particular theatre may often be a search light upon their stage-craft."² Shakespeare wrote for the Queen

¹ *Ibid.* p. 363.

² *Preface to Shakespeare*. First Series, p. XIV.

and the King and the Court circle, the aristocrats and the gallants and ordinary citizens, the rif-raff Elizabethan London all bent upon enjoying a two hours' traffic on the stage. The stage was a recreation, an act of faith which purged and purified men's minds from the filth and cramping atmosphere of daily life, and it was more a place to inspire the nation that did mighty deeds and spoke mighty words and also supplied the joy of chit-chat and mere bawdry of its own sake. The age loved life and action, there was a largeness and joy of life—a sense of wonder and also a seriousness in the nation for whom Shakespeare wrote. So with minor exceptions, there was no difference between the taste of a noble and that of a man of the street or the scholar of the University. The 1603 Quarto edition of *Hamlet* has on the title-page :

"The tragicall Historie of *Hamlet Prince of Denmarke*, By William Shakespeare. As it hath been diverse times acted by his Highnesse servants in the cittie of London : as also in the two Universities of Cambridge and Oxford, and elsewhere. At London printed for N. L. and John Trundell 1603." We know that *A Mid-Summer Night's Dream* was written to be played as a marriage festival; so was perhaps *The Tempest*. *Macbeth* was presented in the Court of James I and *The Merry Wives of Windsor* was acted in the Court of Queen Elizabeth. The audience were not certainly very different, but "had the same general character, differing, as Bradley says, "only in degree". We find the same features—love of bawdry, verbal quibbles, superstition and ghosts and fairies, rank ribaldry in the plays as the plays meant to pander to the taste of the groundlings. So Smart was right when he pointed out that "Shakespeare intended his works for the same public for which Spenser wrote the *Faerie Queene* and Byrd and others composed their airs."² So it will be wrong to think that Shakespeare's plays were "Miraculous flowers growing out of place in a field of thistles." They stand out in their "proper setting in harmony with their medium and their vehicle and by no means wanting that it is the only grade and setting out of a tragedy, a full and understanding auditory" as Webster puts it.

There are traces of Shakespeare's girding at the pit or groundlings and appealing to the finer taste of elegant men of the court or the Universities. But we must be on our guard against such evidence. The audience were a more living part of the stage. "Kilian proves how strikingly this relation is evidenced by the

¹ Oxford Lectures on Poetry, p. 364.

² Shakespeare : Truth and Tradition, p. 155.

monologue, in which the speaker, so to say, fraternises with the audience."¹ So the audience took a more living part in the creation of the atmosphere of the play. This might appear as absolutely destroying dramatic illusion, but as Granville-Barker says, "there is no illusion, so there is every illusion," as the imagination of the audience at once flares up by coming in touch with the magnetism of the suggestions of the stage.² We need not be sorry for Shakespeare's audience. Great art always glows up from the heart of the ordinary people for whom the greatest artist has drawn, the finest sculptor has carved statues, the finest composer has created symphonies, and the greatest poets and dramatists have written poems and plays. Discriminating and sophisticated critics have not inspired great art. So Sisson says, "The fact is that Shakespeare found fit hearers among all classes of London Citizens. If they had a fault, it was that of uncritical catholicity of taste. It was the pit that above all demanded the poetic drama as well as mirth. . . . They saved the Elizabethan drama from becoming over-educated and urbanised, and preserved its strength and universality, despite theorists, men of wit and fashion, and experimenters like Ben Jonson".³

Now it is time to speak of the defects that have cropped up in in Shakespeare's plays because of his popular appeal. The first is faulty construction showing careless composition. Herringe and Condell wrote in the Preface to the First Folio, 'And what he thought, he uttered with that easiness, that we have scarce received from him a blot in his papers'. Ben Jonson retorted; "Would he had blotted a thousand". Often there are sly references and innuendoes, but we miss the points. There were also suggestions from the actors who enjoined like the spectators the points in the dialogue which we miss. Coleridge wants to reject the knocking scene on the ground that the scene seems to have been "written for the mob by some other hand, perhaps with Shakespeare's consent".⁴ Hundreds of lines may be found which have no significance for us.

Secondly, Bridges takes exception to the coarseness of Shakespeare's language. He seems to have found pleasure in gross jokes. Bridges takes exception to Miranda's unnatural suggestion of her grand-mother's possible adultery and remarks, "This was a cliché of the time, and may be marked *passim* in Shakespeare. It

¹ Shakespeare Criticism 1919-1935, p. 152.

² Preface to Shakespeare, First Series, p. xxxi.

³ A companion to Shakespeare Studies, p. 39.

⁴ Shakespeare and the Elizabethan Dramatists, p. 239.

was absolutely without significance, and thrust in wherever a fool might expect it".¹ His critic points out, "Bridges read hardly at all the lesser Elizabethans or he would have known how anaemic is Shakespeare's ribaldry at its worst, compared with what was common—for example, with the jestful impropriety of the catch which Thomas Heywood makes brave, Horatius sing with two companions about fair Lucrece."² Brett-Young rightly points out, "That without these we should feel that he had lost something of breadth and universality." We do not agree with Bridges when he says that "Shakespeare should not be put into the hands of the young without the warning that the foolish things in his plays were written to please the foolish, the filthy for the filthy the brutal for the brutal".³ We may point out like Bradley that Jonson defied his audience and wrote a good deal that we think bad. In the same way many of Shakespeare's faults cannot be due to condescension to his audience⁴.

As for violence, fighting, duelling we find instances in *Henry VI* (See Bradley's account on p. 367) *As You Like It*, *Romeo & Juliet*, *Hamlet*, *Macbeth* and *Coriolanus*. These may have pleased the audience immensely. Jonson laughed at the presentation of battles on the stage.* The actors of the Elizabethan stage could dance and sing, fence and wrestle and were tumblers and acrobats as the pleasure-seekers wanted it. Bear-baiting was a feature of the city life in London. Heretics and traitors were killed and hanged and roasted sometimes. These are traceable to the "tastes and habits of his patrons" and to "the fashions of the primitive theatre." The Elizabethans were not fine gentlemen with the delicate sensibilities of the present age. There was something of rashness and violence in them, and their nerves were of steel and their muscles of stone. So these men wanted all sorts of news, scandal, rumour, jew-baiting, colonial adventures, stories of cannibals, anthropophagi, ship-wrecks and argosies laden with gold and silver, of strange nations and stranger manners and customs.

The fool is often considered as a relic of the morality plays and was the beloved of the groundlings. The merriment, songs and dances and unconnected pleasantries must have amused the spectators, respectable or otherwise. Shakespeare took up the fool and made

¹ Edward Thompson's Robert Bridges, p. 74.

² *Ibid.*, p. 74.

³ *Ibid.*, p. 75.

⁴ Oxford Lectures on Poetry, p. 366.

* Shakespeare himself lamented the inadequacy of his stage to present the battle of Agincourt in the Chorus to Henry V.

him a part of the drama vitally linking him with the centre of interest of the play and giving him new theatrical capabilities of infinite depth and significance. In the early plays he was a stage-clown like costard. But he is humanised gradually and in Launce we have the beginning of the true Shakespearian clown—Bottom, Costard and the Dromios. The clown developed as an idiot who is the butt of ridicule and next as the conscious humorist like Touchstone who used his folly to shoot at others. In *Twelfth Night* the fool has to face a serious situation—mere folly seems to be irreverent in a serious atmosphere. Shakespeare has travelled a long way and developed the popular favourite into the critic's favourite. "Beyond Feste", says Isaacs, "the fool cannot go with impunity".¹ Shakespeare has tried through Hamlet to stop the professional comedian's temptation to 'gag'. The final triumph of the artistic use of the fool is to be found in *King Lear*—one of the most daring achievements of the Romantic imagination of the world's greatest dramatist. But we shall not discuss the fool at greater length, as we want to discuss him from a different standpoint. Shakespeare's ideas were moulded by his actors to a greater extent than the audience of the time.

The mixture of tragedy and comedy, as Raleigh says, was a question not of propriety and classical precedent, but of necessity. The people would have their favourites; and when the old variety entertainments of the early London stages gave place to serious drama, room had to be made for the most famous actors".² In play after play Shakespeare has made a virtue of necessity and touched the fool only to adorn him. And what a magical transformation we find here!

Shakespeare neither accepted nor rejected the popular demands; he reformed the popular form of art as he got it and left on it the impress of his great individual genius. He was not a time-server. Yet there are instances of his trying to please the audience even against his conscience.

WHAT WERE THE CONCESSIONS OF SHAKESPEARE TO THE MOB?

As a dramatic artist he and his brother actors must have had an eye on stage effect. Pure aesthetic enjoyment of creation apart from the enjoyment to the audience was something unknown to him. A critical inspection of the plays and their text will amply show how

¹ Shakespeare Criticism 1919-1935, p. 313.

² Shakespeare, p. 101.

he tried in spite of all his love of art to concede to public taste in scene after scene, but these concessions are so cleverly arranged that the æsthetic critic may easily claim them as instances of the necessity of higher art.

The double plot is more often than not a popular version of the main theme. This very often supplies, as in *As you like it*, *King Lear* or *The Tempest*, an element of fun and is a travesty of the grave main plot. Secondly, scenes of servants and minor characters—like the quarrel of the servants in *Romeo & Juliet*, the Gardeners in *Richard II*, the Officers of Antony in *Antony and Cleopatra* are always indicative of a slackening of a tension intended purposely to give the audience relief by bringing them to a lower plane of imagination. Thirdly, the fool who was too mischievous for a serious play and an obstruction to its serious moments was to be guarded against. Shakespeare reformed him and raised him to a higher level of reality often trying to isolate him from the main characters as in *Hamlet*, *Macbeth*, and *The Winter's Tale*. Mob scenes take the place of the Fool in the historical plays or characters like Barnardine, Caliban or Autolycus, the court group in *The Tempest* or Stephano and Trinculo in the same play. Ordinary men like the first gentleman or the second are often transformations of the fool or the lighter element introduced, as critics might say, by way of dramatic relief. The gags of the Fool could not be absolutely eliminated as the text of *King Lear* had led Sir Walter Raleigh to suppose; these tags were added to the text which formed the acting version of the play. Similarly the knocking scene and the Hecate scene may have been added by some other hand to the severe concentration of the play of *Macbeth*. The same concentration is also found in the severe dramatic structure of *Othello* where Iago has to add a note of pleasantry more than the fool can. That in the last plays fools or fools transformed into magnificent characters—story like Caliban—and is not Shylock an early attempt to create a magnificent character not a mere laughing-stock?—should have survived is an indication that Shakespeare could not fully detest the darlings of the audience of the Globe Theatre.

In this section we shall try to show that, except for certain topical and rough and crude, and often barbarous forms of popular tastes or interests, most of the finer forms of artistic interest in Shakespeare's plays were influenced by bias of his individual genius. Concerned as we are with the theatre alone, we shall think of the

personnel, their likes and dislikes which in turn might have been connected with the taste of the people in certain cases.

So far as interpolations were concerned, we are certain that the plays of Shakespear contain a good deal that he himself never wrote. Many of the silly, obscure or feeble passages—and there are lots of them—were actually added by the players. Here as everywhere “the theatre was for Shakespeare a laboratory where he worked with human materials.”¹ He tolerated them by their effect. People liked them and the plays, as Heminge and Condell say, “have had their triall already, and stood out all appeales.” Hundreds of crabbed passages there are throughout Shakespeare’s plays; particularly in witty dialogues, where we think the hands of the players appear; what appeared as improvisations, seem to have entered into the plays during the rehearsal. In *Macbeth*, *Hamlet*, *King Lear* there are many passages of this nature which cannot otherwise be explained. Coleridge who was no textual critic made an intuitive suggestion about the knocking scene when he says, “This low soliloquy of the Porter and his few speeches afterwards, I believe to have been written for the mob by some other hand, perhaps with Shakespeare’s consent; and that finding it take, he with the remaining ink of a pen otherwise employed, just interpolated the words, “Ill” devil-porter is no further . . . everlasting bonfire.” Of the rest not one syllable has the ever-present being of Shakespeare.”²

Actors and their influence have been treated elsewhere: Sisson says that “Shakespeare’s plays were acted by the cream of Elizabethan actors.”³ It is quite natural, as Harrison wisely suggests, that “he could not produce characters for which the company had no physical representatives.”⁴ He got a company and a stage moulded after his heart’s desire; and his inner maturity synchronises with the building of the Globe which was his dramatic laboratory. The greatest actor of the age was by his side to inspire him to greater artistic and intellectual daring; never had thought and poetry, imagination and fancy been mingled with such depth and felicity. The souls of the actor and the dramatists must have passed through the purgatory of misunderstanding, suspicion, ambition, passion and lust and self-indulgence to the paradise of the Tempest. Each must have encouraged and inspired and co-operated

¹ Prefaces to Shakespeare Part I, p. 6.

² Shakespeare and the Elizabethan Dramatists, Pt. 239.

³ Introducing Shakespeare, p. 107.

⁴ The English Comic Characters, p. 89.

with the others. A serious man as Richard Burbage was, his imaginative subtlety and rich and forceful voice made the plays a source of intense delight. If a mixture of comedy with tragedy was the norm in Shakespeare in the later plays, pure fun seemed to be growing to something, as Priestley suggests, more than buffoonery flung in at random, it had become comment, criticism".¹ In the Roman plays and the tragedies where the human soul in all its vastness and depth, subtlety and delicacy has been carved out bit by bit by the profoundest dramatic genius, the serious Burbage must have demanded a lyric grace of emotional unity, and Hamlet's advice to the comedian seems to be the great tragedian's warning to the capers of William Kempe and his tribe with their gags which seem to cut in twain the delicate fabric of imagination built up by the creative endeavour of the actor. The heroes are growing old and serious—travellers between life and death—and in Prospero we mark the swan song of a great creative soul yearning for a soul's rest—both actor and dramatist retire. Lastly, we mention the golden music of Shakespeare's verse. He created: "a new art of acting".² Granville-Barker ought to have said it was a joint-creation of the actor and the dramatist. Possibly the exquisite soliloquies, alike for their flash light into the hero's mind as well for their musical quality, might have been written—in the greater tragedies at least—on the suggestion of this great actor.

The heyday of the King's Company certainly passed away with the retirement of Burbage who was succeeded by Joseph Taylor, Lowin being the second leading man. Sisson remarks, "the whole business of acting must have toned down, made less individual, passion giving place to dignity of pathos, declamation to eloquence in Shakespeare's last plays and in such plays as his successors provided for them"³ Very possibly Shakespeare alluded to William Kempe in the speech of Hamlet about "immoderate and ill-regulated comic acting and license in gagging and business". Tarleton and fools of his time, says Garvinus, "remained on the stage not merely in certain scenes, but during the whole piece. They improvised their jests as occasion offered; they conversed, disputed, bantered with their hearers and their hearers with them, and in these contests Tarlton was pre-eminent".⁴ Shakespeare had to introduce the fool as the audience wanted him and the actors also wanted to produce

¹ A Companion to Shakespeare Studies, p. 47.

² *Ibid.*, p. 37.

³ Shakespeare Commentaries, p. 95.

⁴ Essential Shakespeare, p. 78.

laughter. Before the appearance of Hamlet the fool in Shakespeare's hand had already become not a mere court jester but like touchstone had learnt to aim his shaft from behind the hobby-horse of foolery. Lance in *The Two Gentlemen of Verona* was the first of a long line, of Bottom, the Dromios, Lancelot Gobbo—they are "tender asses" but the mere fool is gradually subtilised and we find two lines, which we may call "the dry clown" and "the sly clown"; the former, a butt to be laughed at, an English clod untroubled with a spark, the latter a simpleton "who uses his folly stalking horse and under the presentation of that shoots his wit".¹ But seriousness sets in and we find in *Twelfth Night* the most serious of comedies under a mask of lightness. "Beyond Feste," says Isaacs, the fool cannot go with impunity".² Kempe had so long helped Shakespeare in foolery, but he was guilty of gags and was a source of trouble to the severe artistic sense of Shakespeare. His sense of humour developed and turned serious. In the serio-comic parts, Dr. Baldwin suggests, Pope (Jaques, Enobarbus, Falstaff, Shylock, Mercutio etc.) and Armin (Touchstone, Feste, Evans, Pompey, Fool, Porter etc.) must have inspired Shakespeare to a great extent. Kempe has been put down for Bottom, Shallow, Lancelot and Dogberry. His inartistic capers must have vexed the new acting tradition built up by the Queen's Company. The departure of Kempe in 1599 and the coming of Robert Armin was a great change in the company and its dramatic achievement. Armin was a play-wright and pamphleteer on fooling. He naturally took Kempe's place as principal comic actor. The growing serious mood of Shakespeare, the aversion of Burbage for mere buffoonery, and his desire to give shape to the infinite passion and the pain of great hearts that are violently agitated in the tragedies and the bold suggestions of Armin to make a daring use of the Fool in the wildest of situations must have been responsible for the sparing use of the fool in the tragedies, particularly the Roman plays. In *Macbeth* Burbage may not have liked the knocking scene, yet something was felt necessary to give him a breathing space to change his dress and a relief to the high-strung nerves of the spectators. The Knocker's part must have been suggested or partly written by Armin. The grave-diggers were not equally congenial to Burbage, yet he had to tolerate his brother actors. In *Antony and Cleopatra*, as Isaac says, "two of the clown's chief functions are divided, that of the buffoon is given to Antony on Pompey's gallery, that of the chorus

¹ Shakespeare Criticism 1919-1935, p. 313.

² Shakespeare Criticism 1919-1935, p. 314.

to Enobarbus".¹ Enobarbus was too grand to be rejected by the fine taste of Burbage who must have liked his "Age cannot wither her". Burbage had to be satisfied, so in the greatest tragedies there is no capering of the fool, only rare suggestions of humour in stray cases where the fool has changed his character altogether. Imitating Bradley we may imagine Shakespeare talking with his friends while his imagination was gradually giving shape to the wildest and the grandest of the tragedies—*King Lear*: "Come my friends, I will show you that the fool can easily be present in the most tragic of situations, and not merely in the ordinary situations to give occasions of laughter to the audience. He won't be a tyrant marring the finer work of imagination built up by Burbage. I had a long discussion with Armin for days together and he has convinced me that the fool may easily be given access to the stormy scenes of passion. My fool accompanies a King in all the scenes of the play and shall stand by him when angels find the situation too hot to stay. I thank you, Armin, for this daring effort and adding inestimable lines of your own. Before I have done you shall confess that he is as indispensable as the old King and the tragedy of the helpless man has been softened and mellowed by his divine foolery. You shall admit, between laughter and tears, that he is the very essence of life, that you have known him all your days though you never recognised him till now, and that you would as soon go without Hamlet as miss him. And Burbage will certainly hold the fool dearer than he has ever done".²

Also the mixture of tragedy and comedy which Ben Jonson and Sir Philip Sidney laughed at was the effect not of any theory of propriety or rules, classical or otherwise, but of necessity. The people demanded the fool; Shakespeare granted their prayer. But more than that, Shakespeare gave suitable parts to actors who demanded nice parts and in collaboration with them he conceived a new type of fools. Still gagging was to be found even after Hamlet's warning. Here we may quote the following lines of Sir Walter Raleigh, "It is not likely that this counsel (of Hamlet) of perfection was observed by the actors. Some of the tags spoken at the close of scenes by the Fool in *King Lear* are directed at the audience, and are quite irrelevant and worthless; these are either unlicensed inter-polations which have crept into the text, or a contemptuous aim thrown to the Fool, to be spoken when, being alone upon the stage, he could

¹ Shakespearean Tragedy, p. 311.

² Shakespeare, pp. 101-102.

do but little hurt to the necessary business of the play. In some of the plays the Fool is isolated to avoid the risk of his interference . . . The Porter in *Macbeth* gets the like hard measure; he is not allowed to play the fool anywhere but at his own gate".¹ It seems that this was the irreducible minimum which Burbage had forced on Shakespeare and his taste also seems to like it. As an artist he might have recognised the advantages of tragic simplicity which his company and public taste refused to concede.

We discuss Shakespeare's love of lovely diction and musical flow of multi-coloured sentiments and emotional outbursts. Marlowe introduced this tradition of long speeches full of rhetorical devices, classical mythology and bookish similes. Priestly has beautifully expressed this love of lovely diction: "When Elizabethan dramatists and poets were all scribbling and the playhouses were packed, language was like a new glittering toy that had only to be tossed rapidly from speaker to speaker to set the house in a roar. Those were the days when bearded gentlemen, resting between two epics of endurance and courage, could get drunk on metaphors and similes and dance with delight under a shower of puns: language was not yet looked up in dictionaries but grew apace, new words glimmering on the horizon like Eldorado. This fire work of dialogue was taken up from one and given to another and here it was that the actors and dramatists co-operated to create a magnificent blaze though much of its glamour seems to us pale and meaningless. Here poet and actor combined to give us a feast the zest of which was different to an Elizabethan audience, spiced as it was with topical references double entendre, scandal and pure poetry and emotion. Some of the magnificent speeches were less dramatic and more poetical to fuse the intensely deep and intellectual atmosphere with a sudden flare up to tone up the flagging interest of the audience. Burbage must have forced Shakespeare to give a soliloquy "as an excuse for the recitation of a reflective poem", though ordinarily it serves the purpose of a self-revelation which is essential to give us an insight into the motives of introspective character. So in *Hamlet* and *Macbeth* the soliloquy is of capital importance though in *King Lear*, *Antony and Cleopatra* and *Coriolanus* it is not necessary as the heroes are men of action. So we find magnificent poetry in *Hamlet* and *Macbeth* and the soliloquies in the musical voice of Burbage must have electrified the audience though in our age the soliloquy seems to be a serious flaw in dramatic art as it breaks up the illusion.

¹ *Shakespeare Criticism, 1919-1935*, p. 307.

Accustomed to rant, the audience swallowed with delight what the Elizabethan actor, specially in thunderous plays, spoke "almost in an avalanche". Isaac says, "there can be little doubt that the prologues and epilogues (also the Chorus in *Henry V*) were regarded as special displays of elocution and, being written and punctuated to that end, still retain their magic, that reach a summit as in the epilogue to *As you Like it*. How far the soliloquy was an exercise in diction will never be known". We are convinced that these were special tributes paid to the histrionic talent of certain actors, and particularly to that of Burbage, who conveyed the most intensely dramatic and emotional heights ever achieved by Shakespeare through these soliloquies in *Hamlet* and *Macbeth* and the magnificent speeches of Othello and Prospero. We do not know where else to find the happiest collaboration between the dramatist and his actors.

The suggestions I have humbly put forward in this paper are in many cases personal and the proofs are difficult to obtain. We have no extant MS of any Shakespeare's plays which might throw any light on this subject; nor have we any of the parts of the actors, as we have one or two of Alleyn amongst the Dulwich papers. The text of the plays altered and revised after the rehearsal by many hands, inserting lines and sentences, might have satisfied our purpose. But such a thing has been rendered quite impossible by the accident of a fire that destroyed the Globe with most of the MSS and stage properties of the King's Company. It was Isaacs who suggested "it seems brutal to speak of a dramatic laboratory, but if we are to be more than amateurs in the study of Shakespeare, as I fear have been many eminent and erudite scholars, it would be well to devote at least a part of our attention to that side of his work which shows Shakespeare as a practical man of the theatre".¹ In such a laboratory much of the mystery of the Shakespearean art will become clear to us and some of the suggestions put forward here might possibly be accepted as true. It will be wrong to suppose that he was "a lordly poet who stooped to the stage and dramatised his song; he was bred in the tiring-room and on the boards; he was an actor before he was a dramatist." And it is also a fact that his company had great actors in it, and they collaborated in creating great plays. Dramatists ordinarily dictate, but "where the dramatist and company worked in harmony together, as did Shakespeare and his company, dictation would be replaced by suggestion and consultation. Thus

¹ *Ibid.*, p. 326.

² Raleigh's *Shakespeare*, p. 94.

Shakespeare's plays represent not only his own individual invention but also the collective invention of his company . . . Doubtless even Shakespeare's plays were the better for the suggestions of the most expert actors of their age, whose lives had been spent in their profession, although the suggestions may at times have occasioned the dramatist a wry face".³⁵ Here Baldwin supports the statement of Gordon Craig which may seem preposterous to many, but is the truth about Shakespeare whether, we like it or not.

³⁵ Organisation and Personnel of the Shakespeare Company, p. 303.

ABOLITION OF SUTTEE AND AFTER

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Much has been written on this subject, and much more may be written thereon, as ample material is available in official archives and in records of current history.

The origin of this practice is perhaps unknown. The *Puranas* contain instances of *Sati*. Etymologically interpreted the original word *Sat* means 'existence', often applied to the Supreme Being, hence 'truth'. The feminine form is *Sati*, 'she who is true' [to her husband]. The generally accepted meaning is immolation of a wife on the funeral pyre of her husband. The observance was not a legal obligation. Relatives even tried, at the early stage, to dissuade the widow from it. But the point of honour and the fear of public opinion, rather contempt, proved stronger than the pain of death. Hence gradually relationship with a *Sati* came to "give a certain amount of glory in the estimation of the natives. The son of a woman who had performed Suttee ranked as a knight. If he could boast that his sister has also burnt herself in the same manner, he could be ranked a baron" (Carey: "Good Old Days of Hon'ble John Company", Vol. II, Page 127).

The mode of burning varied in different provinces. In Bengal the woman was bound firmly to the corpse of the husband, and the two bodies were covered with bamboos. In Orissa the widow threw herself on the pile, which was usually in a pit, from which it was difficult to rise. In the Deccan, where the practice was rare, the widow sat on the pile and placed the head of the dead husband on her lap. She remained thus motionless till she was suffocated by the smoke, scorched by the heat, and overthrown by the fall of heavy logs of wood. In certain provinces the victim was intoxicated with opium. She would sometimes madly rush out of the flames, only to be brutally thrust back by the spectators. In Rajasthan there used to be a loud beat of drums to drown the shrieks of the burning woman.

Similar practices may be traced to primitive tribes in Asia and Africa, among whom at the death of the chief his widows and slaves used to be immolated. In equatorial Africa when the king died, four of his wives and a number of slaves were forced to poison themselves,

the poison being poured into a parrot's egg for them ; if this was not effective they had to hang themselves. At Katunga the chief wife of the deceased king, his eldest son, and other important personages were burnt with him. Among certain aborigines in New Zealand the widow used to be strangled on the tomb of the buried husband. Diodorus Siculus in his narrative of the expedition of Alexander the Great says that " this institution took its rise among these barbarians [meaning the Rajputs] from the crime of one wife who destroyed her husband by poison " (Carey : *Ibid.*, Page 127). He describes how two widows of an Indian general disputed the honour between themselves. One of the two could not be burnt, because she was with child. The other advanced towards the funeral pyre, being crowned with flowers and accompanied by relatives who sang in her praise. Then, having distributed her jewels to her friends and domestics, she lay on the pile by the side of her husband, and died without uttering a cry (Diodorus, BK. XIX, Page 34). At that time the law permitted the sacrifice of only one wife. The custom was no longer observed except by wives of grandees and Rajas. At the death of Prince Marava aged 80 years his 47 widows were burnt with him and a temple was erected over their ashes. As late as 1857[?] the Pekin Gazette published a decree according a tablet to the memory of the wife of a mandarin who had poisoned herself on hearing of the death of her husband in a battle against the rebels.

It is said that the practice was not very wide-spread in India in historical times except among the Rajput chiefs. But it became general in the northern provinces including Bengal in the last century (Anderson and Subedar : " The Development of an Indian Policy ", Page 32). Many Cases are recorded in " The Selections from Calcutta Gazette ". In the debate in the House of Commons in March 1827 on Mr. Poynder's resolution on this subject, a case was mentioned which has become historic. (Carey, *Ibid.*, Pp. 128-29). Even in places near Calcutta such cases took place. The following figures give an idea of the extent to which the rite prevailed in the early part of the last century : 1815—378 cases, 1816—442, 1817—707, 1818—839, 1819—650, 1820—597, 1821—654, 1822—513, 1823—575. These make a gross total of 5,425 cases in 9 years in Bengal alone. And the figures obviously represent cases which came to the notice of Government officials. The number of children left destitute in consequence of these sacrifices amounted in these nine years to 5128. (Carey : *Ibid.*, Pp. 131—32). It is said that Job Charnock, founder of Calcutta, rescued a Hindu widow who was about to

perform the supreme sacrifice, and afterwards married her. She is said to have been a very good wife to Job Charnock.

It was Lord Wellesley who first took up the matter in right earnest in 1805. Some years later it was ordered that the practice was to be "inspected, regulated, controlled, and reported on," and in 1813 a code of instructions was circulated to the following effect. Police officers were told to obtain the earliest information of an intending Suttee, to repair to the spot, to ascertain if the sacrifice was voluntary, to prevent it if procured by force or by means of drugs or intoxication, or in the case of pregnancy, and to furnish an elaborate report, with particulars of caste, occupation, residence and number of children, and so forth. Then the widows who had young children were not to burn, unless some relative came forward to support the orphans. Magistrates were allowed to use all the arts of rhetoric or persuasion to save the widow, even when the sacrifice was 'legal,' and relatives were to be fined for failure to notify the occurrence. (Carey: *op cit.* pp. 230-31).

In 1827 Lord Amherst considered the matter and came to the conclusion that prohibition would be unwise, if not impossible. "I am not prepared," he wrote in 1827, "to recommend an enactment prohibiting *Sati* altogether . . . I must frankly confess, though at the risk of being considered insensible to the enormity of the evil, that I am inclined to recommend our trusting to the progress now making in the diffusion of knowledge among the natives, for the gradual suppression of this detestable superstition. I can not believe it possible that the burning or burying alive of widows will long survive the advancement which every year brings with it useful and rational learning." (Anderson and Subeder: *op. cit.* p. 84).

It was left to Lord William Bentinck to finally tackle the abuse and give it its quietus. His Lordship was ably assisted in this by his colleague Sir Charles Metcalfe and was supported by Raja Ram Mohan Ray, who had looked helplessly on the immolation of his brother's widow. He brooded over the wrong, and when the Hindus of Calcutta petitioned in 1818 praying for a repeal of the orders then in force concerning this rite, it was the Raja who said, "Your petitioners are fully aware from their own knowledge or from the authority of credible eye-witnesses that cases have frequently occurred when women have been induced by the persuasions of their next heirs, interested in their destruction, to burn themselves on the funeral pile of their husbands; that others who have been induced by fear to retract a resolution rashly expressed in the first moment

of grief, of burning with their deceased husbands, have been forced upon the pile and there bound down with ropes and pressed with green bamboos until consumed with the flames; that some after flying from the flames have been carried back by their relations and burnt to death. All these instances, your petitioners humbly submit, are murders according to every Shastra as well as to the common sense of all nations" (Anderson and Subedar: *op. cit.* p. 86). It was the Raja who supplied the arguments which convinced Sir William Bentinck that the practice should be stopped in deference to public sentiment in favour of it. The Raja also pointed out in another letter that there was no foundation for the custom in the Shastras.

The famous Minute, dated 8 Nov. 1829, of Lord William Bentinck on the subject discloses the broad-mindedness and catholicity of his view as well as the firmness of his purpose. He consulted many on the subject, among whom was Horace Hayman Wilson, the famous Orientalist and Secretary to the Hindu College, and he eloquently observes:

"Prudence and self-interest would counsel me to tread in the footsteps of my predecessors. But in a case of such momentous importance to humanity and civilization man must be reckless of all his present and future happiness who could listen to the dictates of so wicked and selfish a policy. With the firm undoubting conviction entertained upon this question, I should be guilty of little short of the crime of multiplied murder if I could hesitate in the performance of this solemn obligation. I have been already stung with this feeling. Everyday's delay adds a victim to the dreadful list, which might perhaps have been prevented by a more early submission of the present question."

"I must acknowledge that a similar opinion as to the probable excitation of a deep distrust of our future intentions was mentioned to me in conversation by that enlightened native, Ram Mohan Roy, a warm advocate for the abolition of *Sati* and of all other superstitions and corruptions engrafted on the Hindu religion, which he considers originally to have been pure Deism."

"The first step to this better understanding will be dissociation of religious belief and practice from Blood and murder. They will then, when no longer under this brutalising excitement, view with more calmness acknowledged truths.

"Descending from these higher considerations, it cannot be a dishonest ambition that the Government of which I form a part should

have the credit of an act which is to wash out a foul stain upon British Rule, and to stay the sacrifice of humanity and justice to a doubtful expediency." (Ramsay Muir: "The Making of British India," pp. 293-295).

"It must be observed that of the 463 *Satis* recurring in the whole of the Presidency of Fort William, 420 took place in Bengal, Bihar, and Orissa, or what is termed the Lower Provinces, and of these latter 287 in the Calcutta Division alone." (Anderson and Subedar : *op. cit.*, page 90).

Acting in accordance with these noble sentiments Lord William Bentinck enacted a regulation declaring the practice of *Sati* illegal and punishable by the Criminal Courts. In the preamble to the Regulation the Governor-General says :

"It is nowhere enjoined by the religion of the Hindus as an imperative duty; on the contrary, a life of piety and retirement on the part of the widow is more especially and preferably inculcated, and by a vast majority of people throughout India the practice is not kept up or observed. In some extensive districts it does not exist; in those in which it has been most frequent, it is notorious that in many instances acts of atrocity have been perpetrated which have been shocking to the Hindus themselves, and in their eyes unlawful and wicked.

"The measures hitherto adopted to discourage and prevent such acts have failed of success, and the Governor-General-in-Council is deeply impressed with the conviction that the abuses in question cannot be effectually put an end to without abolishing the practice altogether. Actuated by these considerations, the Governor-General-in-Council—without intending to depart from one of the first and foremost important principles of the system of British Government in India, that all classes of the people be secure in the observance of their religious usages so long as that system can be adhered to without violation of the paramount dictates of justice and humanity—has deemed it right to establish the following rules" (Anderson and Subedar : *op. cit.* p. 93).

The regulations laid down that the practice of *Sati* was illegal and punishable by Criminal Courts. All Zeminders, Mandals, etc. were enjoined, on pain of punishment, to bring all cases or impending cases to notice, the procedure to be followed on receipt of information by a *dāroḡā* was laid down, and aiding and abetting a *Sati* were to be deemed as being guilty of culpable homicide.

In his famous Minute dated 28 February 1856 Lord Dalhousie at the close of his administration wrote :

“ The prohibition of Suttée by the British Government is now a familiar tale. In the time of those who preceded me, great progress had been made in persuading all native Princes to unite in denouncing the rite, and in punishing those who should disregard the prohibition.

“ The Government of India, since 1848, has had only to follow up the measures of preceding years. When Suttée has occurred in any independent state, no opportunity of remonstrating has been lost. When it has occurred in any District which was within our control, no indulgence has been shown to culprits.

“ Thus renewed remonstrances have been addressed to Ulwar, Beekaneer and Oodeypore. But in Doongurpore, a petty state under our direct management, where the Thakoor's son took part in a Suttée, the son and two Brahmins who abetted his crime were condemned to imprisonment for three years in irons; while the Thakoor himself, for the same three years, was mulcted in half the revenue of his possessions. The performance of the rite of Suttée is now a rare occurrence, either in Mohamedan or Native States” (Lord Dalhousie: Minute dated 28 February 1856, pages 60 61, para. 146),

Still in rural areas of Bengal one occasionally comes across legends associated with particular spots where *Satis* are believed to have sacrificed themselves. Midway between the village Birsingha and the township of Kharar in the district of Midnapore there is under an old banyan tree a very small structure, hardly deserving the dignified name of a temple, which is of special interest being popularly associated with one of the last *Satis*. It is believed that at the spot, now known as *Satitala*, one of the *Satis* of the early nineteenth century courted death in the funeral pyre of her husband. According to one version of the legend current she was aged 50, had 7 sons, and while her husband's dead body was burning and she stood at a distance, a mysterious flame broke out, enveloped her person, and consumed her. The plot of land where this strange fire appeared was considered sanctified, and the local people dug out there a tank in her memory. It is now no bigger than a small pond, still known as *Sati's tank*.

Even today we occasionally come across reports of Suttée, performed or attempted. The press is particularly vigilant in collecting such informations for their sensation value. And they come mostly from Central India. A correspondent of UPI reported from

Jubbulpore, 16. 9. 1952 : "A young wife, unable to bear the untimely loss of her husband, threw herself on the funeral pyre and performed *Sati*. The 22 years old wife from the village of Khiriya in Saugar district insisted that she should put an end to her life along with her husband, leaving even her one-year old child. The villagers and relatives, it is stated, informed the police, while the widow sat with the head of her dead husband resting on her lap for 40 hours. As the police did not arrive and the body was getting decomposed, the villagers had to yield to the widow's insistence to follow her husband's body to the cremation ground. After setting the fire ablaze the sad widow sat on the devouring fire and attained her wish." And PTI distributed this piece of news from Jodhpur on 19. 10. 1954 : "Thakurani of Bira, wife of Brigadier Jabbar Singh, today committed *Sati* burning herself on the funeral pyre of her husband who died yesterday. The Brigadier was Comptroller of Household to the Maharaja of Jodhpur. Police reported that they came to know late of the incident and could do nothing to prevent it. An eye-witness to the incident said that he saw the Thakurani slip into the funeral pyre overcoming the obstruction of her son and other relatives. A police party has been posted round the cremation ground, which since this afternoon was visited by hundreds of people." And lastly, an attempted suttee was prevented by the police only a few months before UPI reports from Jabalpur on 29. 9. 1955 : "The police arrested a woman from Mandla about 60 miles from here under Section 309 I.P.C. for attempting to perform *Sati*, according to report reaching here. It is stated that the widow of one Tanti Thimar of Bisour village in Niwas Tehsil entered the funeral pyre of her husband. But unable to bear the severe heat, she jumped out of the pyre."

PRODUCTION CONTROL & LABOUR EFFICIENCY

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In industrial administration, production control arrangements perform vital functions. Apart from merely putting an order through the works, production planning and control as functions of industry are concerned with the co-ordinative mechanism of factory operation. This co-ordinative mechanism from the angle of production planning and control is concerned with various processes in a factory as a unit closely and mutually linked up. The aim is production by the best and the cheapest procedure. Quality and time are of course considerations. Let us take an example; in a factory of any size, be it a factory for job, batch or flow production, we have first to formulate the design of the product and then proceed planning with advance scheme prepared about the execution. We have to take into consideration the yielding capacity of the factory both qualitatively and from quantitative standpoint taking in view manpower as well as mechanism. The planning complete, shop orders and clerical routines are undergone to put the plans under operation.

But the question is, once the plan is put under operation, should the planning executive cease to have any function, as indeed the matter would then form a technical problem of production proper? Already as has been noted, when in a co-ordinative mechanism, production planning has to work, the planner has also to watch the progress to find out the precise working. Here production control has two functions, the one, with planning to foresee and the other, a control. In planning to foresee, one has to consider happenings in proper perspective and time with maximum efficiency at minimum labour and cost.

How to make this planning is a problem. If we apply theories as gathered from various *other* conditions *than* are prevalent in the factory, our planning would be dubious. All we have to do is to acquire exhaustive information of actualities by comparative study of allied industries keeping in view the uniformity and causal relations against the requirements of a particular problem. To attempt production planning of a factory in India with a background of American production control would be anachronistic in as much as to likewise attempt without reference to allied industries in the country.

Once it is successfully achieved either by experience or by comparative study, it will reduce to a minimum the mental labour of production.

Next will begin a constant comparison between planned procedure and actual results. The planned programme has to be compared with actual results from the point of view of material and quality as well as operational sequences, method and time.

It is not within the purview of this paper to discuss standard purchase specifications or raw material standards, but to view production control so far as labour efficiency forming part of Industrial Psychology, is concerned. But side by side, with the problem of labour efficiency, one has to consider the most efficient procedure of operation, as well as the various operations themselves, and the groups and grades. Having carried the sequence of the operations, time allowance for efficiency measurement, becomes necessary.

Therefore, in scheduling the job and setting plans in motion, strong vigil seems necessary, that individual operatives are provided with all amenities for smooth working, so as to enable them to receive materials on which they work, at the right time and at the right place. This can be done by a systematic store control by identity labels, move notes etc., which again does not form a subject for discussion here. A Progress or Inspection Branch controls quality and quantity including review of machine loading to eliminate idle hours for machines. How often do we not find in Printing Factories Case Rooms & Machine Rooms not working in concomitance?

The significance of Control of Labour Efficiency forms in fact an important aspect of Production Control, with the essential aim of production of a better product at a lower cost. In fact, as a writer puts it, "It is one of the tools of economical manufacture whose goal is the achievement of the highest efficiency in production through the production of the required quantity of product, of the required quality at the required time, by the best and cheapest methods." The above follows automatically, when we proceed to plan the sequence of operations—the progress of each job through different shops or processes. As soon as we maintain records, we can at once check the cost, on time and labour budgetted.

Let us illustrate this again from the working of a printing factory. The scheduling being done, the docket or Works Instruction Ticket is prepared and it is sent from the office to the Production Manager. He looks to the nature of the job and passes on to the composing, mechanical or hand as the case may be, and the work begins to evolve

from section to section ultimately to the machines and thence to the bindery and despatch. But what about the Production Manager in the meantime? He goes on checking the outturn by physical verification and check-records to determine the estimated cost and the actual cost of production, all the time detecting the 'drones' in manpower and the circumstances for not attaining the planned or budgetted estimate.

But here again the achieving of the highest individual productivity of the compositor or machineman no doubt counts and the system employed plays in achieving this objective but alone; yet as has been truly said, all the most modern improvements in technique would prove insufficient without the fullest co-operation from the workers.

But even by introducing planned labour welfare or enlightened wage policy, co-operation from labour is not seen to be always achieved. In getting labour co-operation, there seems therefore, to have two methods, either by payment for time spent or for work done. If we pay by result, no doubt, we can increase efficiency and output as well as save time. But this piece system has its drawbacks of ceiling price of labour being fixed and the apprehension of rate-cutting. There is also the apprehension of labour being converted into a machine, ultimately telling upon the very structure. But it must also be admitted that the industrial hand left to his own initiative is hopeless and unworthy, and only an appeal to personal interest of whatever form bears fruit and increases efficiency. Appeal to personal interest may not always mean reward; it may also mean punishment. But the true implication is a financial incentive for increased attempts. The other incentive is to set the man at the proper place—to give the highest class of work for which he is fit.

NYĀYA-MANJARI

Vol. II (14)

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An answer to the above question is as follows. If one minutely observes the import of verbal communication then he understands that the activity of an agent is also conveyed by a verb. Let us now leave aside the verbs in the subjunctive mood. If we carefully examine the verbs in the present tense then we shall see that from the verbs 'Yajate' etc. we unmistakably guess the activity of an agent. As we grasp the act of cooking etc from the verbs, 'cooks', 'reads', 'goes' etc. so we make out the activity of an agent which is invariably connected with all these acts. Though the act of cooking and such other acts come into being and cease to exist yet the knowledge of the activity of an agent remains unaffected. When nominal suffixes are attached to words 'Upagu' etc. the resultant words are 'Aupagavaḥ', 'Kāpatavaḥ', 'Aupamanyavaḥ' etc. These words convey as well the meanings of suffixes attached to the basic word. The lifting up of a weight and the taking down of a weight are implied by such suffixes. Similarly, an additional meaning viz. the activity of an agent is observed to permeate through the original meaning of a verb.

Moreover, when one intends to explain the meaning of a verb viz 'cooks' he explains it thus:—One does the act of cooking. The act of cooking becomes the object of the transitive verb 'does'. In Sanskrit language the meaning of *pacati* is expressed in the form 'pākam-karoti'. The word 'pāka'—the meaning of the root 'pac' gets the second case-ending. This case-ending points to the fact that pāka is the object of Karoti. The word 'Karoti' (does) represents the activity of an agent. The terminal inflexion, attached to the root, points to the activity of an agent. We have already stated that the word 'Karoti' stands for such an activity.

When the question "what does Devadatta do ?" is put, two sorts of answer are given by the two speakers. One says that he does cooking. Another person holds that he cooks. These two answers purport to convey the same thing. Otherwise the inquirer would not have grasped the answer. Thus the two words "Pākam 'karoti'" (does cooking) convey the same meaning as is conveyed by the single word "Pacati" (cooks). The meaning of the root 'to do' is grasped

by us as distinct from that of the root 'to cook'. The distinct meaning which is conveyed by the root 'to do' is called 'Bhāvanā' (i. e. the activity of an agent).

Some critics join issue with the above thinkers and hold that a terminal inflexion, attached to a root, does not convey an activity which is distinct from the number of an agent etc. and is other than the meaning of a root. If a distinct activity had been grasped then the verb 'karoti' (does) too would have conveyed it. The verb 'karoti' consists of two elements viz. (1) the basic root (kr) and (2) the terminal inflexion attached to it. These two elements cannot present to our consciousness two distinct meanings.

A reply to the above criticism is as follows : The thesis has not been properly grasped. If one uses two words viz. pākam karoti then the sense which is conveyed by the inflexion attached to the first 'kr' is different from that conveyed by the inflexion attached to the second (kr). But if we use the word 'pacati' then the inflexion attached to the root 'pac' conveys the same sense as is denoted by the inflexion attached to the first (kr).

Nobody disputes that the number of an agent and such other things are expressed by these inflexions. Thereby we should not deny the presentation of an activity as noted above.

The activity which is conveyed by karoti cannot be somehow communicated by any other word. Words which denote distinct verbs only convey also such an activity. All words do not communicate it. Which are the distinct words pointing to such an activity? Oh yes, there are such words as we shall now mention.

All transitive verbs, having terminal inflexions, point to the activity of an agent. The verbs like yajeta etc., having proper inflexions attached to them, indicate the said activity. There are a few verbs which are intransitive. When suffixes are attached to them they assume forms like the words 'bhāva', 'bhāvanā' and 'bhūti'. The suffixes 'ghan', 'lyut' and 'kti' have been attached to the root 'bhu' (to be). The resulting words denote existence or being but not an activity. There are some words which denote rites but not verbs. Let us illustrate them. The words like Syena Yāga etc. exemplify them. The words like Syena etc. are proper names of some Vedic rites. This point has been proved before. But there are roots of transitive verbs viz., Yaj, dā, 'hu' etc. When we use them in sentences we attach proper terminal inflexions to them. These terminal inflexions, having synthetic character, indicate the actual mood of a verb viz., the subjunctive mood etc. Verbs, having been employ-

ed in proper forms, express the activity of an agent. Let us illustrate few verbs employed to convey the activity of an agent. They are 'Yajeta', 'dadyāt', 'juhuyāt' etc. As the above meaning *viz.*, the activity of an agent is expressed by a verb in the causal form (bhāvayet) so it is also distinctly expressed by the verb 'karoti'. One cannot say that the said activity is not conveyed by the verb 'karoti'. (The printed text-book seems to us to be incorrect. We suggest two corrections here *viz* bhāva yet iti vat and nānaṇurāktena. We are following the Banaras edition of Nyāya-manjari p. 308 lines 25 and 26). But when the verb 'karoti' is not associated with other acts such as the act of sacrificing etc. it cannot be employed to signify the said activity. Therefore the distinct words such as Yajati etc. communicate the activity of a person known as bhāvanā which is to be brought into being. Thus the existence of bhāvanā is proved.

Some thinkers hold that bhāvanā is a distinct type of activity and is an internal activity of the soul. It is distinct from the outer motion known as spanda (vibration).

Some other thinkers hold that bhāvanā is conation which belongs to the soul. When it appears the soul gives up its inactivity.

This conation effectuates sacrifice, libation etc. Everybody admits that it is distinct from the acts such as sacrifice, libation etc.

Though conation is an attribute of the soul yet it is not similar to the attribute of ubiquity etc. The soul is directly aware its existence because it bears upon acts such as sacrifice, libation etc.

Another sect of thinkers holds that as a universal belongs to all individuals of a particular class but does not belong to a particular individual so the universal verb which is shared by all distinct acts such as sacrifice, libation etc. is called bhāvanā.

As cowness belongs to all individual cows *viz.*, Sābaleya etc. as their common property and each individual cow e.g. Sābaleya etc. has its specific property so an activity in general belongs to all acts *viz.* the act of sacrifice etc. as their common feature and each act has its specific feature e.g., the act of sacrifice has its peculiar form. The common activity is called bhāvanā. As the universal of cowness, isolated from all particulars, e.g., Sābaleya etc. can not be presented to our consciousness a pure common activity dissociated from all particular activities, cannot be presented to our consciousness. This common activity is always presented to our consciousness as associated with other particular activities. The absence of pure common activity is not proved because of its such association. The pure soul is never experienced. It is always experienced as associated with pleasure,

pain etc. the specific attributes of the soul. But such an association with attributes does not disprove the existence of the pure soul. This being the case, when a question "what is he doing?" is put with regard to an unknown specific act an answer is given *viz.*, he cooks, he reads book etc. As it reveals the specific nature of an act so it is appropriate. Though 'bhāvanā' is an act in general yet it is not a universal like the universal of cowness or the universal belonging to an act. If it were an accomplished fact that it would not be enjoined.

Moreover, in cases like the following "One should sacrifice", "One should make gifts", "One should pour libation" etc. a consecutive series of non-specified activities is presented to our consciousness. Such a series of activities is enjoined. Such non-specified activities as are denoted by roots and are capable of being performed constitute bhāvanā. From this stand-point one may hold that a bhāvanā is denoted by a root. One may argue that a bhāvanā does not constitute the meaning of a root since the verbal nouns such as pāka (cooking), dāna (giving) etc. do not communicate a bhāvanā. The defender of the views may also counterargue that a bhāvanā should not also be denoted by a suffix because verbs like bhavati etc. do not convey it. (We get the verb bhavati by attaching a terminal inflexion to the root bhū.). In fine, we say that we need not make much of accurately settling the point in question. It is our confirmed opinion that a bhāvanā is conveyed either by a root or by a suffix.

A BHĀVANĀ CONSISTS OF THREE FACTORS

A bhāvanā is communicated to us either by a root or by a suffix. But it relates to three subjects of urgency (1) *viz.* what is to be achieved (2) by which means it is to be achieved, and (3) how is it to be realised. The first subject of inquiry is what is to be achieved. This inquiry is answered by word 'Svarga-kāmaḥ' (one desirous of heaven). What is to be achieved? 'Heaven' is our answer.

Now, a doubt arises in our mind. The word 'Svarga-kāmaḥ' points to an agent but not to an end. Therefore the above solution does not satisfy us. The above doubt may be solved thus. It is a truism that the said word points to an agent. But here the statement purports to convey heaven. Heaven denotes bliss par excellence. It is an end in itself but not a means to an end. Heaven is desired as an object to be achieved. Hence it falls on the side of a desirable object. We mean to say that heaven is to be achieved. If the word "Svarga-kāmaḥ" literally signifies one who desires heaven then it is clear that heaven is to be achieved. If one admits that the compound

word 'Svarga-kāmaḥ' is an example of the Bahuvrīhi compound then it points to the fact that heaven is to be achieved. If we carefully examine the force of an injunction then we see that an injunction points to the above conclusion.

When one is aware of the end that he should achieve heaven he enquires. "By which means is heaven to be achieved?" This inquiry is satisfied if it is held that heaven is achieved by a sacrifice. Thus a sacrifice is related to heaven. Now, a question arises in our mind *viz.* no word such as Yāgena is given in the injunctive sentence. He means to say that there is no such explicit statement as shows that one should attain heaven by means of a sacrifice. But it is given that one should sacrifice. [Given is equivalent to 'heard'.] The complete verb consists of two parts *viz.* (1) the root and (2) a terminal inflexion. It is said that the terminal inflexion in the subjunctive mood denotes a bhāvanā (the mental activity of an agent). Now, the remaining element is the bare root. Now if a *kṛt*-suffix is attached to this root then the word 'yāga' is framed. If the third case-ending is joined to this word then we get the word 'yāgena'. Now, the question is "How can the bare root 'yaj' convey the sense of inflexional word 'yāgena'?" The problem is solved thus:— Oh longlived one! You do not take an exception to the hypothesis that a bhāvanā is denoted by a suffix or an inflexion. Thus you should also agree to accept that a bhāvanā also relates itself to a sacrifice. A bhāvanā refers to a sacrifice (yāga) in such a manner as fulfills its requirements. If its requirement were not fulfilled then it would not have referred to a Yāga. If the root 'yaj' fulfills the requirement of an instrument then it becomes capable of being related to a bhāvanā. In this manner the root 'yaj' is related to a bhāvanā. The meaning of the root 'yaj' does not convey the sense of the third-case ending. Hence let the third case-ending be not attached to the root 'yaj'. But owing to the force of expression belonging to a word the root 'yaj' conveys a yāga as an instrumental case. If you ask "Owing to the force of which word does the root 'yaj' convey the above meaning, *i.e.*, the meaning of yāgena?" then we answer that owing to the force belonging to an inflexion in the subjunctive mood—an inflexion which conveys a bhāvanā—the above meaning is conveyed. There is no royal mandate to the effect that the instrumentality of an object is conveyed only by the direct mention of the third case-ending. A subjunctive inflexion denoting a bhāvanā suggests the sense of the third case-ending. We along with the critics accept the above view. Therefore, why do the critics not

accept the view that in the sentence "one who is desirous of heaven should sacrifice" heaven is the object to be achieved.

Or, when from a verb the meaning of a root is known as an object to be achieved the second case-ending signifies that the associated object is to be achieved.

Now, a doubt arises in the mind of the objectors. If the above solution is final then the meaning of the root is identical with the object which is to be accomplished. In that case the root 'yaj' will answer the question what is to be achieved? It should fall on the side of what. If you ask what is to be performed then the answer is a sacrifice. Again, a sacrifice requires an instrumental cause for its completion. What is its instrumental cause? A sacrifice should be causally connected with Brihis (a kind of paddy) determined in another Vedic sentence. The meaning of the root 'yaj' should not be taken as an instrumental cause. The inflexion which is attached to the root denotes an activity to be brought about. This activity is directly directed towards an object which is close at hand. It is its natural course of direction. If it does not concern itself with an object and if it is taken to relate itself with an instrumental cause which is remote then the activity does follow the proper channel of direction. Therefore the said activity should not be connected with an instrumental cause.

An answer to the above objection is as follows. The syntactical relation as suggested by the objector would have been accepted if the word 'Svarga-Kāmah' had not been given in the injunctive sentence. As it has been given in the sentence so the meaning of the root 'yaj' should be taken as an instrumental cause but not as an object. If you ask "why" then our reply is this. The object which is to be achieved is heaven. Therefore, the root 'Yaj' does not signify an object to be achieved. But it signifies an instrumental cause which helps the coming into being of an object. The reason behind our statement is this. Heaven is an object of desire. It is pleasure itself. As the word 'heaven' conveys no other sense so it, being nothing but pleasure in itself, is worthy of being achieved. When we long for an object to be achieved heaven alone attracts attention as an object longed for. So a sacrifice, conveyed by the root 'yaj', does not represent itself as such an object. Heaven requires an instrumental cause for its coming into being. The instrumental cause in question is a sacrifice. Thus, a sacrifice has been determined as an instrumental cause. A particular sacrifice, Jyotiṣṭoma by name, has been again mentioned as an instrumental

cause. Therefore, it is reasonable to hold that the sacrifice, conveyed by the root 'yaj', is identical with Jyotiṣṭoma. Thus, Jyotiṣṭoma and such other proper names become designations of sacrifices.

There are a few designations of rites which give evidence in favour of the hypothesis that a sacrifice itself is an object to be achieved. Let us cite an example *viz.* "Agnihotram juhōti (one should perform the Agnihotra homa)." The example, cited by the objector, does not affect our hypothesis. Though the meaning of the root superficially appears to be the object to be accomplished yet a deep insight into the construction of the sentence reveals that the said homa, called Agnihotra, is really an instrumental case; otherwise, the compound word 'Savarga-Kāmaḥ' will have no syntactical relation in the sentence. We have already cleared our position. In some Vedic sentences the names of sacrifices are used as an objective case e.g. 'Agnihotram juhōti'. In some other Vedic sentences the names of sacrifices are used as an instrumental case e.g. 'Jyotiṣṭomena Yajati' etc. Therefore 'Yaji' should be syntactically related as an instrumental case. Thus we establish the point that a sacrifice is a means to an end but not an end-in-itself. This is what is meant by the statement that a sacrifice is the instrumental cause of a sacrifice.

It has been stated that the proximity of the root 'yaj' to its inflexion indicates that the meaning of the root is the object to be accomplished. Such a statement is contrary to reasons. Two words are mutually related in a sentence by a particular relation if they are determined as fit to be related in such a manner. When such fitness for being mutually related is logically ascertained ground for mutual relation to be held between the two terms is prepared. In the absence of such fitness, mutual relation between two terms cannot take place. Heaven is a fit object to be achieved and a sacrifice which is denoted by the root 'yaj' is fit to be its instrumental cause. We have already stated our view.

When one learns that a person should achieve his object longed for by means of a sacrifice a desire springs up in his mind how to perform a sacrifice. Now, he connects the system of means mentioned in the injunctive sentence and in other sentences with the sacrifice in question. The means mentioned in the sentence enjoining a sacrifice is that one who performs a sacrifice with a view to acquire animals should sing a song consisting of the Revati Rks set to the tune Vāravantiya—a song sung in the Agniṣṭoma sacrifice. The means mentioned in other sentences are as follows:—One should

unhusk paddy with pestle and mortar', 'One should grind rice', 'One should offer twigs to fire', and 'One should worship fire'. Our conclusive view is that these means possess visible and invisible efficacy. They almost in every case give an answer to the question 'how'. When a visible benefit is made one is to think such acts as the act of pounding etc. This act has a direct influence upon the meaning of the root *i.e.* the rite to be performed. A subsidiary action which contributes towards a sacrifice in an invisible way renders indirect benefit to it *e.g.* the twigs of a sacred tree. (If one makes an offering of twigs to fire then he gets benefit in the next world. Hence it renders an indirect service to the sacrificer. But if we do not pound rice then we cannot prepare cakes from rice. So its service is tangible. The two terms 'sannipatyopakarini' and 'ārādupakarini' have been used Jayanta in senses contrary to those of these two terms used by the modern authors of philosophy.

When an end, means to it and an act—the tripartite elements of a sacrifice are mutually related a sacrifice becomes fit to be performed. The fitness which it acquires is called *bhāvanā*. If a *bhāvanā* takes place then an injunction and a prohibition become fruitful.

There are two injunctions *viz.* (1) "One who desires heaven should perform Darśa and Paurṇamāsa sacrifices" and (2) "One who longs for heaven should perform Jyotiṣoma sacrifice." These two injunctive sentences are to be interpreted in the light of the principle laid down before. The meaning of the first sentence is this that one is to achieve heavenly bliss by means of Darśa and Paurṇamāsa sacrifices and he shall have recourse to the subsidiary actions such as the establishing of sacred fire etc.

An objector may find fault with this hypothesis and argue against it thus. If this is your hypothesis why do you think that an injunction is inevitably necessary? You have said that when verbs are used in the present tense they signify the activity of an agent. Then why do you assume a verb in the subjunctive mood? Now you may contend that "We assume an injunction *i.e.* a verb in the subjunctive mood either in order to demonstrate the causal relation holding between a sacrifice and heaven or in order to persuade one to undertake an action or to dissuade him from doing it. But due consideration being given to requirement, fitness and proximity though a verb is used in the present tense yet it pointing to the activity of an agent throws light on the causal relation subsisting between the act of sacrifice and heaven even without the aid of an injunction. Now the upholder of the above hypothesis may contend that assumption of an

injunction is necessary because it supplies us with the impelling force *i.e.* an injunction goads us to undertake a rite. Such a contention does not hold good since the movement of a person depends upon his will. If a person knows that a sacrifice is a means to heaven then he who desires to attain heaven moves for it *i.e.* adopts the adequate means but he who has no such desire does not move to do anything. How does an injunction help him in any way? An injunction can neither fetter the legs of an unwilling person with an iron chain nor tie down the hands of such a person with a piece of rope. A person desires to avoid the sphere of prohibition which includes the drinking of wine, the killing of a Brahman etc. because he knows these acts to be evil ones and desists from committing them. Hence neither an injunction impels one to undertake an action nor prohibition prompts him to retard from an action. Therefore, it is illogical to assume the hypothesis of an injunction or that of a prohibition for the purpose of movement or otherwise.

THE DETERMINATION OF THE CHARACTER OF AN INJUNCTION (VIDHI)

We do not know what is the definition of an injunction (vidhi). Some thinkers say, "An injunction causes a person to move—a person who has not moved but does not reveal what remains unknown since the second definition is too wide."

Yes, we have heard the verse which contains the definition of an injunction but fail to ascertain what is exactly the mover of the unmoved. Even the great savants of learning entertain a grave doubt as to the exact characterization of a mover. Does the suffix which is symbol of the subjunctive mood cause one to move? Or, is the sense of the suffix, presented to our consciousness, a mover? Or, does the operation of the awareness of the sense of the suffix give us an impetus? Or, is the result of an action a mover? Or, is the ascertainment of an exact means to the desired goal an impeller? Or, is an attachment for the desired goal a motiff? As there are so many rival hypotheses on the point at issue so the true character of a mover is not determined. Hence we fail to grasp an injunction. You have said "What is the need of having recourse to an injunction?" We have got something to say in this matter.

This is the super excellent power of an injunction which unites a sacrifice, the meaning of the root 'yaj', with heaven with such a tie as holds between a means and an end.

If one holds that the sentence "Svarga kāmō yajeta" (One who desires heaven should sacrifice) has no injunctive force and the

word "Svarga kamaḥ" points only to the agent then this statement is inconsistent like the statement "The white colour is the Hotṛ priest". If the sentence is not used in the subjunctive mood then the verb "yajeta" cannot be syntactically relate itself with heaven as its object since heaven occupies a subordinate place in the sentence, being the first member of the compound word 'Svarga-kāmaḥ' and is very remote from the suffix which stands for the actual verb. According to the natural order of words given in the sentence a sacrifice should have been the objective case since a sacrifice is practicable and is constituted by consecutive parts. It is only through the favour of an injunction that the relation of a means to an end between a sacrifice and heaven is revealed to us; otherwise, we could not have known it. Therefore we must assume a sentence in the subjunctive mood.

How does an injunction indicate the relation of a means to an end? It reveals the relation in this way. A suffix representing the subjunctive mood, normally induces a man who has implicit confidence in the result of a rite to undertake it. When a person listens to an injunction which commands him to pursue non-human end his interest flags since he has no regard for the ideal. When a person moves for performing a rite, being prompted by an injunction the injunction, apprehending some limitation in its persuasive force settles the question that heaven—the human end, is an object to be accomplished and a sacrifice is its means. The persuasive force of an injunction is demonstrated as it throws light on the end and its means.

An exception has been taken to the above hypothesis with the remark, "If a person does not move to undertake a Vedic rite though an injunction points to heaven as the end of human life then how can an injunction exercise its persuasive force? Such an objection is baseless. An injunction does not set a person to motion like the air. The air sets conscious or unconscious objects in motion. But an injunction only induces one who is endowed with consciousness. The inducement of a conscious person by an injunction makes him feel that he has been led to an action by the injunction. Such an awareness cannot be produced in the mind of a person if an injunction does not reveal the goal of an action. When the goal is brought to light the complete knowledge of a Vedic rite is produced. When the true knowledge of a Vedic rite dawns in a person he is persuaded by an injunction conforming to the path of proof to undertake a Vedic rite. If a person does not undertake an action owing

to his idleness etc. or owing to the absence of need then let him not undertake it. But an injunction has done its duty because it has stimulated the listener to the effect that he has been inspired by it. The awareness of inspiration is one thing and the volitional reaction in the external world is another thing.

An injunction is at the root of the knowledge of the causal relations holding between a sacrifice and the goal of a person. This knowledge owes its origin to the awareness of the first inspiration set up by an injunction.

If one listening an injunctive sentence "One should sacrifice", feels the inspiration but does not comprehend the causal relation indicated above then the injunction does not become complete in itself. For this reason, it is said that the said causal relation is hinted at by the awareness of inspiration. In case of prohibition on listening a prohibition that one should not kill a person is not prevented from perpetrating an evil deed, however prohibited it may be, unless and until he realises that the said act is intrinsically evil. Therefore, an injunction is significant even if an act is prohibited like an enjoined one. Hence, an injunction must be resorted to.

The question "Why has an injunction been resorted to?" appears to us to be similar to that raised by Simple Simon. We do neither follow injunctions nor avoid prohibitions of the modern age. We are not the authors of the Vedas. But we simply learn them. We learn from the Vedas the sentence in the subjunctive mood that one who is desirous of heaven should sacrifice etc. The well-defined meaning of such an injunction is that heaven is an end to be achieved and a sacrifice is a means to that end. Such a meaning is not supplied to us by an act of imagination. It is conveyed to us by the suggestive power of an injunction. Therefore we should have recourse to an injunction.

(To be continued)

THE SEPOY ARMY—ITS STRENGTH COM- POSITION AND RECRUITMENT ON THE EVE OF THE MUTINY OF 1857

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In the drama of the Mutiny of 1857 the main actors were the sepoys who formed an overwhelming majority of the British Indian Army of the day. They shared the glory of victories in many a campaign along with the European troops who were but a small percentage of the then fighting corps in India. The defence of the Indian Empire was then entrusted to forces partly native and partly European. So far as the European element in the British Indian Army was concerned, the Queen of England lent a part of her European troops for service in India for which the Company paid. The Company also used to recruit additional European troops on its own initiative. Between 1842 and 1845 the East India Company raised recruits at five stations such as London, Liverpool, Dublin, Cork and Edinburgh. From these different centres was recruited an army, 4333 strong, approved for service during those years. Of this strength of the 'White army' London supplied 52 P.C., Liverpool, 12 P.C., Irish districts, 22 P.C. and Edinburgh, 14 P.C. The year 1846 saw the opening of two more recruiting centres namely Bristol and Newry.¹ As to the native forces or the sepoys, the East India Company maintained three separate sets of armies for Bengal, Madras and Bombay Presidencies. The defence of India was thus entrusted to four principal armies, Queen's, Bengal, Madras and Bombay.² The armies of Bengal, Madras and Bombay were separate and distinct, each under its own commander-in-chief and each presenting some peculiarities of organisation. Though separate in organisation, they fought in large military operations

¹ Parliamentary paper Vol. 42 for 1857 paper No. 201, p. 35.

² Parliamentary paper Vol. 29 of 1857, Paper No. 219 session 2, page 1. Besides the four principal armies a few irregular and local corps such as the Hyderabad contingent, the Punjab Frontier Force, a local force for Nagpur and the Oudh Irregular Force were raised with the growth of the Company's territories and responsibilities in India. The local force for Nagpur, raised after its annexation in 1854, disappeared in the course of the Mutiny while the Oudh Irregular Force, formed after the annexation of Oudh in 1856 was broken up shortly afterwards. *Vide* Cambridge History of India Vol VI pp. 164-165.

with such oneness of feeling as befitted the soldiers belonging to a single army.

For military purposes India was parcelled out into a number of divisions each of which was under the command of a general, brigadier or any other officer, responsible for all the troops, European and native, within his division. These military divisions were not necessarily identical in area or boundary with the political divisions of the Empire. The two kinds of divisions military and political, were treated on two different considerations.¹

The strength of the native and European troops, spread over different military stations, has been variously estimated by different writers on the Mutiny. In a general Report on the Military State of India, submitted on 27th November, 1849 Sir Charles Napier stated that the four distinct armies, Queen's, Bengal, Madras and Bombay, consisted collectively of about 300,000 fighting men.² Lord Dalhousie in his letter, dated 17th November, 1849, written to his friend, Sir George Couper stated inter alia on the strength of the Indian army thus: 'While we are 25,000, they (the Sepoys) are 200,000 disciplined men.'³ According to Sir George MacMunn, on the eve of the Mutiny the forces in India amounted to 40,000 Europeans and 311,000 natives, the ratio between them being about 1 to 8.⁴ Major General Hancock of the Bombay Army in his report on the results of his enquiry into the organisation of the Indian Army stated that as per the India House Returns the Indian Army before the Mutiny was composed of 38,745 Europeans and 231,374 natives.⁵ The Returns relating to the Armies of India issued from the East India House on 12th April, 1858 by Philip Melvill, Secretary, Military

¹ A History of the Indian Revolt and of the expeditions to Persia, China and Japan—published by W & R, Chambers, p. 208.

² Parliamentary paper Vol. 29 of 1857 paper No. 219—Session 2, p. 1.

³ Private letters of the Marquess of Dalhousie, edited by J. G. A. Baird, p. 102.

⁴ The Indian Mutiny in perspective by Sir George MacMunn p. 17.

⁵ Parliamentary paper Vol. VIII of 1859. Report of the Major General Hancock on the organisation of the Indian Army. Paper No. 2516—Session 1, p. 21. The document records the following details of the European and Native forces as per the India House Returns.

Non-Commissioned Rank & file

	European	Native	Total
Artillery.	6,419	9,188	15,557
Sappers.	110	3,043	3,153
Cavalry.	2,456	30,533	32,989
Infantry	29,760	188,660	218,420
	38,745	2,31,374	2,70,119

Department recorded the following strength of the Indian Army in each of the three Presidencies of Bengal, Madras and Bombay from 1852 to 1857.¹

	Total European	Total Native	Grand Total
1852 Bengal	26,089	139,807	165,896
Madras	11,687	53,714	65,401
Bombay	10,933	45,552	56,485
	<u>48,709</u>	<u>239,073</u>	<u>287,782</u>
1853 Bengal	24,986	139,246	164,232
Madras	11,370	53,787	65,157
Bombay	10,577	45,312	55,889
	<u>46,933</u>	<u>238,345</u>	<u>285,278</u>
1854 Bengal	26,531	138,674	165,205
Madras	11,172	53,254	64,426
Bombay	9,443	44,921	54,364
	<u>47,146</u>	<u>236,849</u>	<u>283,995</u>
1855 Bengal	25,344	139,162	164,506
Madras	10,927	53,031	63,958
Bombay	9,822	44,898	54,720
	<u>46,093</u>	<u>237,091</u>	<u>283,184</u>
1856 Bengal	24,594	137,109	161,703
Madras	10,352	53,201	63,553
Bombay	10,158	44,911	55,069
	<u>45,104</u>	<u>235,221</u>	<u>280,325</u>
1857 Bengal	24,366	135,767	160,133
Madras	10,726	51,244	61,970
Bombay	10,430	45,213	55,643
	<u>45,522</u>	<u>232,224</u>	<u>277,746</u>

It is gathered from the statement above that the total strength of the native troops in all the three Presidencies together during the period between 1852 and 1857 was the highest in 1852 and the lowest in 1857 and that the European troops during the same period numbered the largest in 1852 and the smallest in 1856. The ratio between the native and European troops, as deduced from the same statement, was less than 5 to 1 in 1852 and more than 5 to 1 between 1853 and 1857, the year of the commencement of the Mutiny. According to the computation of another authority² the British India

¹ Parliamentary paper Vol. XLII of 1857-58 paper No. 201, p. 5. The Indian Army the strength of which was estimated by Melvill included Royal troops (Dragoons and Infantry) and company's troops consisting of Engineers and sappers, Artillery (Horse European Foot & Native Foot), Native Cavalry (Regular and Irregular), Infantry (European, Native Regular and Native Irregular), Veterans Medical establishment and European Warrant Officers.

² Vide W & R Chambers—Pp. 208-209.

possessed as on 10th May, 1857 an army of 238,002 troops of whom 38,001 were Europeans and 200,001, natives, as supported by the following details :

	Europeans	Natives	Total
Bengal Army	22,698	118,863	141,361
Madras Army	10,194	49,737	59,931
Bombay Army	5,109	31,601	36,710
	<u>38,001</u>	<u>200,001</u>	<u>238,002</u>

Thus the authorities, as mentioned above, are at variance with one another with regard to their estimates of the strength of the Indian Army on the eve of the Mutiny.¹ The combined strength of the European and Native branches of the Indian Army on the eve of the Mutiny may be approximately estimated to have been in the neighbourhood of 300,000 men in round numbers² on the basis of the statements of different authorities, as cited above. Of this strength the majority was commanded by the sepoys. The disproportion between the strength of the European and that of the Native

¹ Besides the authorities, indicated above, there are others offering different estimates of the strength of the Army. According to *Sir Richard Temple* (*vide* The World's Great events Vol. VII pp. 1-2) the native forces numbered more than 2,47,000 men of all arms. Of these about 50,000 belonged to Madras, 30,000 to Bombay and the remainder to Bengal. As recorded by *T. R. Holmes* (*vide* his article in the Cambridge History of India Vol. VI Chapter X p. 172), at the close of Dalhousie's administration the native troops numbered 233,000 and the British troops, less than 46,000 and the disproportion was increased in the same year in consequence of the Persian War. According to *Sir William Lee Warner* (*vide* his Life of the Marquess of Dalhousie, Vol. II pages 551-55 footnotes) the Indian Army contained 27,350 Queen's troops, 11,860 Company's European troops and 243,880 native regular troops in addition to 31,522 irregulars and 24,435 military police. In the Volume 'Indian Army' (reprinted from the Third Edition of the Imperial Gazetteer), page 19, the following strength of the British and Native Armies on the eve of the Mutiny has been furnished :

BRITISH

	Cavalry	Artillery	Infantry	Total
Bengal	1,366	3,063	17,003	21,432
Madras	639	2,128	5,911	8,708
Bombay	681	1,578	7,101	9,360
	<u>2,686</u>	<u>6,769</u>	<u>30,015</u>	<u>39,500</u>

NATIVE

	Cavalry	Artillery	Sapper & Miner	Infantry	Total
Bengal	19,288	4,734	1,497	112,052	137,571
Madras	3,202	2,407	1,270	42,373	49,252
Bombay	8,433	1,997	637	33,861	44,928
Local Forces & Contingent	6,796	2,118	...	23,640	32,554
Do.	...	...	...	Unclassified	7,756
Military Police ...	...	...	...	...	38,977
	<u>37,719</u>	<u>11,256</u>	<u>3,404</u>	<u>211,926</u>	<u>311,088</u>

Grand total of British and Native troops—350,538 thus the native troops outnumbered the Europeans by nearly eight to one

² This figure has been accepted by Kaye and Malletson. In their calculation, out of this strength 40,000 were European Troops. History of Indian Mutiny. Vol. I, p. 250.

troops was glaring. During the five years preceding the departure of Lord Dalhousie there had been a vast extension of the British power in India without any corresponding increase of the European forces, maintained in the country on the contrary, the strength of the European soldiers as in 1852 had been reduced in 1856 by more than three thousand men.¹ Again, as already noticed, the native forces commanded an overwhelming numerical majority over the European troops. To control the huge native army of 2,33,000 men, according to the computation of Holmes, there were less than 46,000 European soldiers of all arms. In other words, according to Holmes the Native and European troops stood in the ratio of more than 5 to 1. According to Sir George Mac Munn, as already stated, their ratio was about 8 to 1. As calculated by Sir Richard Temple, there was only one European soldier to face six native fighters. The disproportionate ratio between the two sections of the Indian Army is further evident from a letter, dated Fort William May 19, 1857 (No. 168) from the Governor-General-of-India-in-Council to the Court of Directors of the East India Company. In that correspondence it was stated that in the Bombay Army the ratio was as 1 to 9½, in Madras Army as 1 to 16½, while in the so-called Bengal Army it was as 1 to 24½.² The dangers of such disproportion were aggravated by the ill-distribution of the European troops. As stated by J. W. Fortescue, "The number of the British troops was small and their distribution to the last degree faulty. There were some thirty-six thousand British soldiers scattered over the vast territory of the British Empire from the Indus to the Irrawaddy...on the immense line of communication between Calcutta and Peshawar the first British troops to be found were a single battalion at Dinapur....There were none at Beneras, none at Mirzapur and actually none at Allahabad....There were only a depot of Infantry and a weak reserve company of artillery at Cawnpur, one weak battalion at Agra and actually none at Delhi.....
...There was no British garrison at Fyzabad, none at Bareilly, only a single weak battalion at Lucknow. At Meerut there were one regiment of cavalry—the carabineers; the first battalion of the 60th; two batteries and a company of artillery, all of them British. It was very obvious that in case of any rising the overwhelming of the little body at Meerut would signify the loss of Delhi, isolation of the petty

¹ As per the statement of Philip Malvill the European troops numbered 48,709 in 1852 and 45,104 in 1856. Evidently the European troops had been reduced in five years by more than three thousand hands.

² Parliamentary paper Vol. 30 of 1857 paper No. 259 p. 9.

garrisons at Agra, Cawnpur, and Lucknow and the severance of all communication between the capital and the Punjab"¹.

The disproportionate ratio between European and Native troops on the eve of the mutiny as also the ill-distribution of the former were important factors, determining the rising of 1857.

The principles of the recruitment and composition of the native army prepared the ground in no less degree for the upheaval of 1857. Early in the history of the sepoy recruitment the sepoys were indiscriminately recruited both from the high and low-caste men. Subsequently paragraph 4 of the Code of published regulations relating to the recruiting of the army prohibited the recruitment of sepoys, except under special circumstances, from amongst inferior castes. The paragraph reads as follows: "Mussalmans and Hindus only are eligible to be enlisted for the cavalry or horse artillery; nor shall the recruits of the inferior castes viz., 'Pullah', 'Pariah' and 'Chuckler' be enlisted for the 'golundauze' or infantry but under the most urgent necessity, when a special report shall be made to the headquarters of the event and of the circumstances which may have led to it."² Many battalions were then composed of lower castes of the native population. The above decision naturally proved hard not only upon the low-caste sepoys but also upon their relatives in so far as they came to be excluded from the advantages, held out to the higher castes who were indiscriminately admitted to the military service of the East India Company. Representations were made to the then commander-in-chief, Sir J. F. Cradock against the decision which excluded the low-castes from recruitment for the company's army. The commander-in-chief thereupon appointed a private committee with Major-General D. Campbell as President and Col. Agnew, Adjutant-General and Lt. Col. Munro, Quartermaster-General of the Army, as members to decide whether the low-caste recruitment should continue or not. The committee thought it unwise to prohibit categorically the enlistment of the natives of low-castes as sepoys in consideration of the inevitable adverse reaction of the prohibition order on the fidelity of those low-caste sepoys, actually under the employ of the company at the time. The Committee, therefore, while recommending that the paragraph 4 containing the prohibition order should be annulled from the regulations also considered it to be highly desirable that the Native army should be composed, as far as practicable, of men of superior castes

¹ History of the British Army Vol. XIII (1852-1870) pp. 243-244.

² Parliamentary paper Vol. 43 of 1857-58, paper No. 129 page 2. The above decision was dated 19th January 1807 and was published from Fort St. George by the Military Secretary, Thomas Reynell on behalf of the Commander-in-chief.

and proposed that the enlistment of Pullahs and pariahs, that is, of low-caste men should be limited to such men only as might be recommended by their connection with Sepoys of respectable character. On the basis of the above recommendations of the Special committee it was finally resolved by Government that 'the regiments of the Native Cavalry should continue to be composed of the higher castes of natives; that so much of the 4th Paragraph of the regulation relating to army recruitment as restricted the admission of pariahs and other natives of low-castes into the regiments of native infantry should be expunged; and that it should be left entirely to the discretion of officers commanding battalions to enlist such persons of that description as are connected with the Sepoys, actually in the service or were of exceptional character'.¹ It is evident, therefore, that the tendency was towards confining the sepoy recruitment to the natives of high caste of the warlike population of India. In fact, Government made no secret of their sincere desire that the whole of the native army should, if practicable, be composed of men of high caste. This principle of sepoy recruitment could not, however, be applied at once without modification to the composition of the Native Infantry. But so far as the formation of the native cavalry was concerned, the principle was to be rigidly enforced with immediate effect. In other words, the Native Infantry might for the time being contain a certain percentage of low-caste sepoys, but the native cavalry should invariably be maintained on a respectability of footing, that is, should be entirely of aristocratic composition. One important consequence of this decision was to make the Indian army homogeneous and patrician in form and structure. Sepoys, recruited from Brahmins following agricultural pursuits, came to command a majority in the Indian army. For many years before the Mutiny the Sepoys were drawn from the Brahmin class engaged in agriculture almost entirely for the so called Bengal Army, largely for the Madras Army and to some extent for the Bombay Army.² The numerical superiority of the Brahmins in the Indian Army came in course of time to be looked upon with suspicion as being fraught with danger in respect of the maintenance of discipline in the ranks. Enlistment of an undue proportion of Brahmins came accordingly to be forbidden. On 9th August, 1830 a circular letter No. 1600 was issued from the department of the Adjutant-General of the Army, discouraging the admission of Brahmin recruits into the Indian Army.³ Many

¹ Parliamentary paper Vol. 43 of 1857-58 paper No. 129 p. 3.

² MacMunn., p. 14.

³ Parliamentary paper (House of Commons) Vol. 43 of 1857-58 paper No. 129, p. 12.

Brahmins in the circumstances managed to be enrolled in the ranks under the inferior designation of Rajputs. A number of the sepoys of 59th Infantry enlisted themselves as Rajputs who were subsequently discovered to be Brahmins. The Governor-General-of-India-in-Council was then convinced of the impolicy of excluding Brahmins from military ranks and issued orders to the effect that hindrances to the admission of the respectable classes of the native community to the ranks of the native army should cease to exist.' Men of respectable castes like Brahmins were, in practice, preferred to those of low-castes for the purpose of filling up ranks in the Indian army, specially in Bengal and Madras.

Besides the issue of the high and low-caste recruitment, there was another problem which also engaged the attention of the Government of India. This was whether the recruitment of the native forces of one Presidency should remain confined to that Presidency alone or not. It is gathered from the Court's instructions, dated 5th December, 1821 that Major Wilson and Lt. Dun of the Madras establishment were engaged in raising recruits at Kanpur, Banaras and Danapur for the Madras Presidency. In this connection it was remarked by Government that 'they were not without apprehension of embarrassment, if the recruiting of armies for other provinces were carried to any considerable extent within the provinces of Banaras, Bihar, Oudh and Allahabad'.² It was accordingly stated by Government in an Extract-Military letter to Bengal, dated 5th December, 1821 that 'the troops of the three establishments should be kept as distinct as possible and that the recruiting for each Presidency should, as far as practicable, be confined to the respective territories of each Presidency'.³ Government strongly denounced any intermixture of the men of three Presidencies in the military ranks. There was no possible or probable advantage, it was urged by Government, in allowing such indiscriminate recruiting as a system; on the contrary it was held that many and great disadvantages, if not danger, might follow from its admission in any shape. Madras and Bombay were more advanced than Bengal in respect of the payment of invalid pension. Again, the system of pensioning the wives and children of deceased soldiers, so common in Bombay,

¹ Parliamentary paper Vol. 43 of 1857-58 paper No. 129 p. 12. The order was issued from Calcutta on 29/31. 12. 1834 by Lord William E. Bentinck and was concurred in by W. Blunt, H. Ross and W. Merison.

² Parliamentary paper (House of Commons) Vol. 43 of 1857-58 paper No. 129 p. 4.

³ *Ibid.*

was almost unknown in Bengal. In case of indiscriminate recruiting discussion on such issues was likely to endanger peace and order in the ranks. Government accordingly stood against intermixture of the forces of the three Presidencies and sought to avoid raising or tampering with, the hopes of Bengal sepoys by a constant comparison of their status with that of their compatriots in the two other Presidencies.¹

(to be continued)

¹ Parliamentary Papers Vol. 43 of 1857-58 paper No. 129 p. 5.



STUDY OF DEVELOPMENT FINANCE WITH SPECIAL REFERENCE TO DEFICIT-FINANCING

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Proper understanding of the concept of economic surplus facilitates the study of development finance. This is because once we are aware of the existence of potential economic surplus, we shall try our level best to tap it and utilize it effectively during the process of planning for achieving rapid economic development. A systematic mobilization of the potential economic surplus,* hidden in the country's economic structure, should be undertaken as this serves as the main building block upon which the whole edifice of development finance rests. A bold plan can be executed in an under-developed country if there are strong evidences of hidden or potential economic surplus and if bulk of this surplus can be tapped and utilized in a proper manner.

FARM SURPLUSES AS SOURCE OF DEVELOPMENT FINANCE :

In a predominantly agricultural country, trying to industrialise by means of planning, agricultural surpluses—potential or newly created—play a vital role in the process of economic growth. In most cases surplus farm products would provide food, clothing, etc., to the people newly employed in the additional development projects and industrial units which have been undertaken during the planning period.† If most of the workers in the “simple capital type” of development projects (such as irrigation works, roads, etc.) are recruited from the army of under-employed farm-population, the problem is easier. These newly employed workers were consuming food and maintaining themselves before they were put to work in the development projects. How was that possible? It was possible because the “productive” agriculturists were supporting their “unproductive”

* Potential economic surplus constitutes a potential source of saving in an under-developed country but it is partly wasted in the conspicuous outlays of upper income groups, and partly for maintaining the unproductive workers like money-lenders, redundant civil servants, absentee-land owners and lazy village gossipmongers.

† See uses of Agricultural surpluses to Finance Economic Development in under-developed countries—Commodity Policy Studies No. 6, F.A.O., June, 1955.

brethren. In the process of "joint-family consumption" of farm surpluses the absolutely under-employed or unemployed (some of them who spend most of their time in arranging village religious ceremonies and other functions or kill their time by taking part in village gossips, definitely belong to the unproductive class of workers) brethren draw heavily from the potential agricultural surpluses of those who actually work from dawn to dusk in the farms. This potential surplus was wasted, from the point of view of national economic development, when the productive workers were feeding their unproductive brethren. But this potential surplus is a potential form of saving and if properly utilized it can solve both the problem of rural under-employment and the task of capital formation. The Indian Planning Commission has fully grasped this point. In India's Five Year Plans we find that Community Development Projects, irrigation works, road construction and other simple capital projects play a vital role and facilitate capital formation during the process of economic development. This capital formation is also being partly financed by utilizing the potential economic surplus which exists because of the joint family system in the villages where usually the "productive" labourers maintain their "unproductive" brothers and sisters. But it should be remembered that this process of utilization of potential farm surpluses, for maintaining the newly employed (and previously under-employed in the villages) labourers working on simple capital projects, would succeed provided it can be assumed that the workers who remain in the agricultural sector continue to produce at least the previous level of output and do not change their previous level of *per capita* consumption. These assumptions may not be true in an under-developed country like India where the *per capita* consumption of the "productive" workers in the agricultural sector is low because in most cases they have to support their "unproductive" relatives. If these "unproductive" workers are withdrawn to simple capital projects it is quite likely that the "productive" workers, who remain in the farm, would consume a slightly greater portion of the farm products. How can we counteract this tendency? The long period solution lies in the expansion of domestic production for which a thorough reorganisation of agriculture is necessary. The immediate remedy will be found in some sort of foreign help or in some measure of compulsion. Compulsory surrender of "potential farm surpluses" by the "productive" agriculturists may not be achieved with cent per cent success in democratic under-developed countries like India. Therefore, it would be useful if farm surpluses of foreign countries could be obtained either as grants or as long-term loan on concessional terms. The latest report of the

E.C.A.F.E. shows that recently there has been an agricultural prosperity in the E.C.A.F.E. region and countries like Burma and Thailand are faced with the problem of marketing their farm surpluses. Such surpluses could be effectively utilized by those under-developed countries in the E.C.A.F.E. region which are planning for accelerated economic growth. The surplus farm products would aid additional effort for rapid economic growth in the under-developed countries if they are profitably utilized in a number of additional "simple capital type" of development projects. In such cases, a part of the resources, required for rapid economic development and capital formation, is coming from the surplus farm-products in two ways. In most cases these farm surpluses could be directly utilized for feeding and maintaining the workers while they are on training and also for paying them in kind when, after the completion of training they are actually working on the projects. In a few special cases, where payment in kind may not be accepted, finance may be obtained through the disposal of farm surpluses in the domestic markets. There is, however, a potential danger in the utilisation of foreign farm surpluses for domestic economic development as this would affect prices of domestic farm products. But it should be remembered that with accelerated economic growth, *per capita* income would increase and standard of living would improve. As a result of which *per capita* consumption of food (both quantitatively and qualitatively) would go up and, therefore, increased supply of farm products, both from domestic expansion of agricultural production and from foreign grants and loans, would eventually match the increase in food consumption. In the meantime, the fall in prices of domestic farm products may be prevented through the pursuance of a vigorous agricultural price support policy by the Government. It is quite true that potential economic surplus (specially farm surpluses which are wasted in the unproductive consumption of virtually unemployed persons) if properly mopped up, can become the main key to development finance. But a study, dealing with the main sources of potential economic surplus and its systematic utilization, tells us only about the general nature of development finance and not about its constituent parts. We now come to the constituent elements of development finance. The sources of finance for development purposes are four:—foreign aid, taxation, domestic borrowing, and deficit-financing.

ROLE OF FOREIGN AID :

First, let us turn to foreign borrowing or outright aids for development. Most of the under-developed countries are living in a

vicious circle of low productivity, inadequate education, poor health and very little capital equipment. Foreign aid might act as an effective starter but, all by itself, it would not be able to break the vicious circle. For piercing the circle, in an effective manner, heroic effort and discipline in the domestic front are absolutely necessary. Economic development cannot be implanted from outside simply through foreign aid. Outside sources of funds will not accelerate economic development unless in the under-developed countries there are fundamental changes in both the mental outlook and the technical knowledge and craftsmanship of the whole population (and specially of the rural community). The various facets of the development plan should be carefully co-ordinated so that the masses are provided with the decent standards of health, of education, and of social security. Simultaneously a public spirit and a sense of responsibility should be injected into all sections of the population. The process of economic development in the under-developed countries can be compared with the arduous method of climbing a stiff hill. Foreign aid can produce the initial impetus which will make the climb seem somewhat less painful in the beginning but if subsequently, there is an absence of an indigenous and articulated movement, the climbing process would end abruptly.

Most under-developed countries have bitter experiences of imperialist domination in the recent past and, therefore, they usually have considerable doubts as to the purposes of foreign aid, whether technical or financial. Therefore, the governments of most of the under-developed countries would be prepared to accept foreign economic assistance if it is offered without any strings attached. From this point of view, the most suitable type of external assistance would be foreign loans given on a purely commercial basis though, in most cases, for such loans rather a high rate of interest has to be paid by the borrowing country. Therefore, too much reliance should not be placed on foreign loan of the commercial type as its price is too high and also because of subsequent complexities in making interest payments in the face of balance of payments difficulties.

TAXATION AND DEVELOPMENT FINANCE :

What next? We now turn to taxation as a source of development finance. Taxation is, perhaps, one of the main instruments for mobilizing domestic savings in under-developed countries with low volumes of national income. But in some of the under-developed countries the non-monetized sector is usually quite large—for instance a large number of village folks may be accustomed to a simple barter

system which means that they are outside the money economy. If in addition to this, most of the people are either close to the subsistence level or even below the level, mass taxation is almost impossible under a democratic set-up and is also less important for our purpose because of its anti-developmental character. The ordinary peasants of under-developed countries cannot be taxed heavily because their *per capita* incomes and standard of living are precariously low. It is also difficult to obtain a greater share of tax revenue from the salaried middle class as, in most cases, the existing tax burden is quite high and in particular cases (as in India) the task is more difficult because of an inflationary impact on the economy during the process of economic development. A rather heavy tax burden on the middle class would prevent further expansion of this class and if middle class is gradually squeezed out, not only the main stabilizing force in capitalism would peter away but the main source of semi-skilled, skilled and professional workers would also disappear. If we cannot tax heavily the ordinary peasants and the salaried middle classes during a planned process of growth in an under-developed capitalist economy, how should we mould our fiscal technique so as to suit our purpose?

In determining an appropriate taxation programme for under-developed countries in the process of accelerated growth, one should bear in mind that the basic need is to increase the coefficient of domestic saving. One method of achieving this would be to mould the fiscal instruments in such a way that a substantial proportion of private investment takes the form of reinvested earnings by business firms which retain them rather than distributing them. In other words, with the help of a reduction or deferment of the taxes on re-invested earnings, capital formation in the private sector would be facilitated and domestic saving would be augmented.

The fiscal instruments should not only be adjusted, in an effective manner, for encouraging saving by entrepreneurs before their incomes flow into consumption, but taxes should also be used directly for curtailing consumption of high income groups on luxury and semi-luxury items. An expenditure tax,* with high exemption limit, should be introduced so that only the better-off class is affected and not the whole population. Mr. Kaldor, the Chief proponent of the "expenditure tax formula" believes that "if the same amount of money were raised from the well-to-do by means of an expenditure tax as is raised by income-tax, the consumption of the rich would be bound to be less, and their savings correspondingly greater". If this is so, then the expenditure tax formula would considerably aid the process of raising

* See Nicholas Kaldor—An Expenditure Tax (Allen and Unwin).

of the coefficient of domestic saving in proportion to the growth in the gross product of the country in the process of development. An expenditure tax, with high exemption limit, not only facilitates the process of economic growth by reducing capitalist's consumption and by increasing domestic saving but is also helpful in another way. By reducing the demand for imported luxuries (mostly consumed by the upper income group) it considerably mitigates the worries connected with an adverse balance of payments.

The introduction of expenditure tax, with high exemption limit, would undoubtedly produce a constraint on the consumption of higher income groups and broadly speaking, its ultimate effects would be somewhat similar to those of additional taxation of a wide range of luxury and semi-luxury goods. But by emphasizing only an expenditure tax (with high exemption limit) or by directly introducing higher taxation of luxury and semi-luxury products alone, it would be difficult to raise sufficient revenue for the financing of a bold plan during the development process. Therefore, the expenditure tax should supplement the progressive income-tax. But the progressive income-tax formula should be so adjusted that the higher rates of personal income-tax are accompanied by some relief for earnings which are reinvested.

Under-developed countries, during the process of growth, should also depend on indirect taxation of both foreign trade and domestic trade. They should rely more on import and export duties. Firstly, from the technical-cum-administrative point of view import and export duties are definitely superior to excise taxes and sales taxes (levied on domestic trade). This is because import and export duties can be easily levied at a few basic points of the economy where we have a large concentration of wholesalers who usually handle the bulk of the imports and exports. But in the case of under-developed countries the cost of collection of excise taxes and sales taxes is much greater because the gross product comes from millions of small producers and is sold through millions of trade channels. Secondly, export and import duties do not bear the characteristics of "mass taxation" and therefore we should not regard them as anti-developmental fiscal instruments. But heavy taxation of domestic trade will mean higher rates of excise duties and sales taxes on almost all the important categories of domestic product. Such taxes would, therefore, fall on the mass of people who are either on the subsistence or below the subsistence line and would be detrimental to the development process. In other words, both from the administrative and developmental point of view it is better for the under-developed countries to rely on a heavy dose of

indirect taxation on foreign trade and a mild dose of indirect taxation on domestic trade...

But it may so happen that both the volume of exports and imports, as compared to the national income, are quite low which would mean that the tax revenue from export and import duties would be correspondingly low. For instance in India the volume of exports is about 9 per cent. of national income because the major portion of the gross product produced is consumed by her own people and because of the "under-developed" nature of some of her major export industries.

Due to a low volume of exports, imports have to be artificially adjusted to a correspondingly low level or otherwise there would be balance of payments difficulties. In such cases, in spite of full emphasis on indirect taxation on foreign trade, sufficient tax revenue may not be forthcoming. (But that does not mean that we shall give undue emphasis on excise duties, sales tax and other types of taxes which fall heavily on all important items of domestic trade and increase the hardships of a great majority of people who are on a precariously low standard of living.) If so, then what type of fiscal solution should be applied in such cases?

Where export and import duties do not raise sufficient revenue, and excise duties and sales taxes are not pushed to extreme points, the basic solution lies in the introduction of a special type of poll tax to be levied directly from the self-sufficient or more than self-sufficient farmers. The number of "more than self-sufficient" farmers would increase with the progress and implementation of development programs in the rural and urban areas because such projects would reduce the pressure of population on land and would improve the technique of farming. Poll tax is a prominent member of the family of land taxes and can be effectively used for tapping the farm surpluses of "above the average" farmers during the process of development. The poll tax is a specially suitable fiscal instrument for raising substantial tax revenue in those underdeveloped countries where with the process of industrialisation the agricultural sector undergoes rapid transformation. Such a transformation and reorientation of agriculture increases the volume of farm surpluses and consequently poll tax yields are substantially expanded.

Thus under taxation as a source of development finance we specially emphasize an expenditure tax (with high exemption limit) and a special type of poll tax (directly levied on farmers enjoying farm surpluses). These two taxes also have the special merit of tapping a substantial amount of potential economic surplus which can be used in a planned manner during the development process. Expenditure

tax, with high exemption limit, effectively mobilizes the potential economic surplus which is usually wasted by the upper income groups in the excess consumption of domestic and foreign luxury items and in the acquisition of ornaments and jewellery. A poll tax on farm surpluses effectively taps the potential economic surplus in the agricultural sector.

DOMESTIC BORROWING AND DEVELOPMENT FINANCE :

We now turn farm taxation to domestic borrowing. The success of a domestic borrowing programme depends on the volume of available savings and on the institutions and methods which facilitate borrowing. In the beginning of the development process the volume of domestic saving would be naturally low in an underdeveloped country because of the vicious circle of poverty. Thus in the initial stages of a programme for planned development, domestic borrowing would not provide a substantial amount of developmental finance. But things would improve with the progress of the development programme as the two main sources of domestic saving would show better results.

What are these two main sources and how do they yield more saving under a programme of accelerated economic development? Profit is a major source of saving and under a planned programme of industrialisation in a capitalistic underdeveloped economy the private sector is as important as the public sector. Every step should be taken for the expansion of the private capitalist sector in a way which would facilitate the emergence of a class of profit-making entrepreneurs who are usually more thrifty than the landlords, the wage-earners and the salaried middle classes. The profit-maker saves more than other people because he knows that the quantum of money, which he possesses, determines his power and position. The second source of saving would be found in the peasant sector of the economy and it becomes more prominent as farm surpluses increase under the process of planned economic development. For tapping this saving special rural borrowing campaigns must be undertaken and a chain of rural savings banks, or other specialised institutions for mopping up rural savings, should be established in the villages. People save more if savings institutions are within their easy reach. The borrowing programme would be more successful if savings institutions and other facilities are pushed right under the individual's nose. For this post office savings, co-operative village community savings, friendly savings societies and street savings groups, among others, should be properly organised.

Thrift and savings habit may be accentuated by means of propa-

ganda. People save more if they are fully convinced about the necessity and urgency of cultivating frugal habits. Mobile savings bank units should be started in the rural areas which would reach the doors of the peasants. These mobile units should be attached to the mobile village post offices and propaganda units. The combined mobile unit, by means of film shows, distribution of pamphlets and booklets, display of posters and wall papers and door to door propaganda regarding the achievements of the plan and the success of the development programmes, would catch the imagination of the people and infuse them with zeal and enthusiasm. If people are persuaded in this manner they would deposit more money in the mobile savings banks and in other savings institutions close to their dwelling places. The savings spirit can be further accelerated if the postal authorities issue special tokens and savings certificates commemorating the fulfilment of the outstanding targets of the development plan.

SPECIAL ROLE OF DEFICIT FINANCING IN A BOLD PLAN :

If an underdeveloped country undertakes a bold and daring development plan, the usual sources of finance may not suffice and consequently more attention has to be given to that extraordinary technique of development finance which is known as deficit financing. The unusual method of financing the development programme is by incurring deficits. Deficit financing, in the context of underdeveloped countries, refers to the creation of new money for filling up the gap between planned expenditure and estimated receipts. If a courageous and vigorous outlook is adopted for the development plan and if daring and generosity, instead of parsimony prevail the development finance programme should be a bold one and deficit financing should occupy a pivotal position in that programme.

In many quarters it is claimed, often on the basis of reasoning and evidence of incredibly low quality, that deficit financing, because of its inflationary potential, is ten times more dangerous than financing by means of domestic borrowing. Such writers make a fundamental mistake because they give more attention to the pattern of existing saving rather than the volume of potential saving when they discuss deficit financing *vis-a-vis* domestic borrowing.

The main opposition to a bold programme of deficit financing, in the context of planned economic development in an underdeveloped country, stems from a peculiar misconception. In the initial stages of planning in an underdeveloped country there is every chance that a too ambitious domestic borrowing programme would fail simply because in the beginning of the development process the coefficient of

to deficit financing then it is customary to over-emphasize the inflationary impact of such a programme and to spot red light where actually there is only a yellow signal.

From the point of view of deficit financing the most important thing is the generation of economic surplus during the process of development. This is because the volume of saving directly depends on the economic surplus currently generated in the economy. During the planned process of development in an underdeveloped country surplus labour and unemployed resources would be utilized by the entrepreneurs and the government and this would facilitate the generation of a greater volume of economic surplus and consequently the volume of saving would be augmented. If this saving is ultimately mobilized and utilized in a proper manner then deficit financing, in the initial stages of planning, can be regarded as a process of advanced borrowing from the potential saving of the community.

To clarify our point of view we give below an illustration where we indicate side by side two hypothetical development plans. These two plans are almost identical. There is only one point of difference which is connected with the patterns, which savings assume, in the financial counterparts of both the plans. In the first plan, we shall show that the deficit between government expenditures and estimated receipts is mostly covered by the issue of bonds and securities to the public (which is an indication of the success of the borrowing programme during the planned process of development). In the second plan, most of the deficit is covered by the issue of new notes (perhaps due to an unsuccessful borrowing campaign).

I. Governmental Accounts in the Plans.

Financial Counterpart of the 1st Plan.

Govt. Expenditure—Rs. 6,000 crores.
Estimated Receipts by the Government
Rs. 4,000 crores.
Gap or (deficit) Rs. 2,000 crores.
Bonds and new money fully cover the
gap.
Bonds issued to the public Rs. 1,600
crores.
New money created Rs. 400 crores.

Financial Counterpart of the 2nd Plan.

Govt. Expenditure—Rs. 6,000 crores.
Estimated Receipts by the Government
Rs. 4,000 crores.
Gap or (deficit) Rs. 2,000 crores.
Bonds and new money fully cover the
gap.
Bonds issued to the public Rs. 400
crores.
New money created Rs. 1,600 crores.

II. Private Sector Accounts in the Plans.

First Plan

Current Income Rs. 7,000 crores.
Current Expenditure Rs. 4,000 crores.
Gross Saving Rs. 3,000 crores.
Private Investment Rs. 1,000 crores.
Net Saving Rs. 2,000 crores.
Shows the pattern which savings take.
Held in the form of bonds Rs. 1,600
crores.

Second Plan

Current Income Rs. 7,000 crores.
Current Expenditure Rs. 4,000 crores.
Gross Saving Rs. 3,000 crores.
Private Investment Rs. 1,000 crores.
Net Saving Rs. 2,000 crores.
Shows the pattern which savings take.
Held in the form of bonds Rs. 400
crores.
Held in the form of Currency Notes Rs. 1,600 crores.

A first look at the plans (given in our illustration) would make most people think that the Second Plan, where the deficit is covered mostly by the creation of new notes, is more hazardous than the First Plan specially from the point of view of inflationary effects. But a superficial analysis is not enough for this purpose. Let us probe deeper into the problem. (We find that in each one of the plans (in our illustration) the net saving generated is equal to Rs. 2,000 crores. This net saving which mainly comes from the creation of economic surplus during the process of growth, is the fundamental building block of any process of development finance.) Whether this saving is kept in the form of notes or bonds is a matter of secondary importance. The most important point is whether the additional amount of public expenditure, on development projects, is equal in value to this net saving. If this is so and if most of the public investment is on productive projects, with well-adjusted maturities, there would be only a mild dose of inflation during the development process. In most cases the primary cause of the inflationary process would be found, not in the pattern which savings ultimately assume, but in the greater degree of inelasticity in the supply of essential consumption goods. (If the supply of food and cloth is elastic, one should not worry too much about the inflationary impact of the deficit financing programme. But it is difficult to achieve absolute elasticity in the supply of food and cloth during the process of expansion and growth; therefore some amount of inflation might result from the deficit-financing technique of financing development projects. But the impact of this inflation can be minimized to a great extent if most of the created money is spent on a bag of properly selected, productive public investment projects with well-balanced maturities. It should be remembered that mild inflation goes well with the planned process of accelerated economic growth. Some inflation is helpful to the process of growth, provided it is kept within bounds. Strong reasons can be put up in support of this view point. Firstly, mild inflation facilitates the process of shifting labour units from a position of underemployment to move productive occupations. The transition of man-power from low productivity jobs to high productivity activities can be achieved in a smooth manner if the incentive of higher rewards exists in the more productive activities. This incentive of higher remunerations is absent when prices are either constant or falling; but it is quite prominent in a period of mild inflation when it can be expected that marginal profits would exceed the marginal costs of production. Secondly, mild inflation is helpful to development planning because it increases agricultural output by means of higher price incentives. Economic development necessitates that

the produce of farmers per head must expand as this would provide a growing surplus per head from which the non-farmers could be fed during the process of growth and expansion. A moderately rising price level is conducive to the process of industrialisation because it increases the food stock necessary for maintaining the urban population. Lastly, mild inflation, by raising profits, stimulates capital formation in the private sector during the process of economic growth. If the economy has a good number of risk-taking and bold industrial capitalists, who invest a large portion of inflationary profits in fixed capital, then it is obvious that mild inflation would accelerate capital formation.

Thus an ambitious development plan would require a bold programme of deficit-financing and one should not be unnecessarily worried about it if proper safeguards are adopted. One should not be unusually perplexed if mild inflation results from the process of deficit-financing of development programmes because a moderately rising price level facilitates economic development. Moreover, if prices are rising at a rate less than the rate of interest, there is almost nil chance of making profit from speculative transactions. In fact, we shall have all the advantages of inflation for capital formation and shall avoid the hazards of speculative extravagances if prices rise on the average by three to four per cent. per annum.

To sum up, if the usual techniques of development finance are inadequate for financing a development plan with a daring programme, we should—without hesitation—switch over to deficit-financing which is a process of advanced borrowing from the potential savings of the community. If the development programme consists of productive and well-balanced projects and if proper measures are taken for increasing the supply of food and cloth, side by side, with the process of reinforcing the capital base of the economy, there would only be mild inflation. Such an inflationary process would definitely be helpful in the initial stage of industrialisation and economic development which is always somewhat painful. But this inflation would peter out of its own accord, after a suitable time lag, because the additional output of consumer goods, made possible by the initial process of capital formation, would ultimately flood the market.

THE CRITERION OF TRUTH AND FALSITY

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I. THE GENERAL NATURE OF THE QUESTION AND THE METHOD OF SOLUTION.

When I judge some perceptual object as P after, say, having a look at it, I take my judgment to be true until P is cancelled or sublated by another perception, say, Q, (as a snake-perception is done by a rope-one) when I take Q to be true and P to be false. However when I have thus perceptual knowledge of P, I say, "I know P" or "There is P", or, again, "I take my perception of P to be true". When I have some doubt regarding an object because of its vagueness, unfamiliarity or its appearance in unusual circumstances (as of a snake in my city office); I say, "It appears to me to be P" or "There appears to be P" or "I cannot take my perception of P to be true". But when I know something to be P, or P to be there, I only take it to be true and I believe, of course, in a sophisticated frame of my mind, that I do not know it to be true and that I may be wrong about it. I cannot say of P that I really or truly know it or that there really is P, I can only say that I merely know it and there is P. Now the question is how can I know whether something I have taken to be true is true, or again, something I have taken to be false is false. How can I know, for instance, that the rope that I judged to be there is really there and the snake I have judged to be a false presentation or mere appearance is really not there?

This is the problem of finding a criterion or test for truth and falsity. A tested truth is known to be true and not merely taken to be so, we, however, know what it is for a perception to be either true or false, that is what one usually means when one says of a perception that it is either true or false. Only we do not know how to be sure of our distinction of a true perception from a false one. That is to say, we know the objects, *viz.*, truth and falsity of a perception, for which we are seeking criteria. This is very important to see at the outset. For some confuse criterion with meaning holding that meaning of anything is constituted by its means of verification. But, then; when they recommend some criteria or means of verification of truth

and falsity, they thereby define these concepts afresh and cannot be said to find or discover their criteria. Thus they go astray from the original purpose of our enquiry which is to find some test for truth and falsity *as we know them* and not to devise new senses in which the words, truth and falsity, might be used. They abandon the terms of reference of our enquiry and engage themselves in quite another, and the criteria they offer for truth and falsity are mere inventions because they start with no conventional meanings of truth and falsity but only adopt whatever meanings are constituted by their proposed criteria. Thus they are at liberty to define truth of a percept by its coherence with other percepts or by its workability in practice or again by its capacity to produce human satisfaction, and there will be no question of their criterion being either correct or incorrect. Nowhere are they restricted by any previously accepted meaning of truth, but then their free flight is inconsequential in so far as none but they may be very much concerned about it. You may devise as many new meanings of a word as you please and claim that these are the only verifiable meanings, and, so, that you are offering us at once both meanings and criteria of use of the words, but others will not be interested in such a game. To interest them you have to first keep the meaning of the word in tact and not tamper with it, and then you have to find some means of distinguishing this from those of other words. They want a criterion of correct use of precisely that word whose meaning they somehow know and, so, which they do correctly use. Only they are not explicitly aware of the criterion or are a little confused about it. Therefore, they enquire about the criterion. But if you tamper with the meaning of the words or propose some new use of the word, they will not know what you are talking about and, at least, they will not bother, whether you have found a correct criterion for use of the word, as you are not meaning the same thing by the word as they mean. You are not answering their question but setting quite a new question for yourself. Thus we are asking here for a criterion of truth while one may offer us a criterion of beauty though designating it by the word "truth". One may, like Keats, say that truth of anything consists in its capacity to seize our imagination with harmony and, so, truth is but beauty. But we will reply that this is no answer to *our* question, for we mean one thing by "truth" and quite another by "beauty" and we wanted a criterion of truth and not of anything else.

Of course, a true criterion for correct use of a word must be a part of the meaning or definition of the word so that it may appear

that one cannot but affect the meaning of truth while one proposes its criterion. But here we have to see that the part of the meaning constituted by the criterion and, so, the meaning itself to this extent, are implicitly known from the beginning and not quite unknown. Neither does the criterion serve to define the word for the first time as if it had no fixed meaning to start with nor does it affect this original meaning prejudicially. A characteristic that is offered to do the first is no criterion proper found for something for which we wanted a criterion but only an arbitrary stipulation of a meaning of a word (such as the scientist or the mathematician makes sometimes when he introduces some new term or symbol), while a characteristic offered to do the second is a false criterion. Thus, for instance, to offer sweet speech as a criterion of friendship is to offer a false criterion, for it appears from the meaning of friendship that a true friend might use hard words when so needed. They may rouse his friend from normal stupor or like degradation of the mind, and, so, be a means of good. But now if the proposer of the criterion says that he does not care for this meaning of friendship and affirms that a friend who uses hard words is no friend, then we will say that he is not offering any criterion of friendship but a new definition of the word by which we mean something quite definite and can also see what criteria are compatible or incompatible with this meaning. So that if one mentions coming to help in need or sharing other's joys and sorrows as a criterion of friendship we readily accept it as a correct criterion. Yet, be it noted, we keep the meaning of friendship quite distinct from its true criterion, which though it is a defining characteristic, presupposes the total meaning or definition of friendship and is true by being a necessary part of this meaning. Without this presupposition of an original meaning of something for which we are seeking a criterion the latter could not be known to be either correct or incorrect and the whole enterprise would lose its point. We must be sure of the meaning of that for which we are out to find a criterion, otherwise ours will be an aimless wild goose chase or at the best an assertion of a meaning of the word standing for the thing, a meaning that may or may not be accepted by others. Meanings of such common and important words as truth and falsity, good and bad, are not the product of arbitrary stipulation by any individual or a group but they are formed by the humanity at large. And since, as we have seen, the criterion of a thing forms a part of the latter's meaning or connotation, it is also not to be devised or just recommended by anybody, howsoever clever, but to be discovered. This means that the criterion is already there,

only we have to identify it in the midst of many other things with which it is rather mixed up in our mind. The task of an individual thinker in this connection is just to be one with the universal mental continuum where the meanings and criteria reside and to distinguish those which are in question. That is, he has to consult his common-sense wherein these meanings get sunk through ordinary social contacts. He has to look into the common usage of the words in question. Since we are sometimes rather confused about the common usage of words because of our forgetfulness and sophistication, we cannot clearly and correctly mention the characteristics, including the criteria, which define a word.

The situation of finding a criterion or means of verification of truth and falsity is therefore paradoxical. It is this.¹ We certainly know what truth and falsity mean, that is, we can use these words correctly. So that we know what it is for which we want a criterion and can tell a false criterion of any of these from its true one.² Still somehow just at the moment when the question of finding a criterion is posed by us we do not know any criterion of these characteristics or of the correct use of the words standing for them.³ And so, in a sense, we do not know these characteristics that is, the meanings or the correct use of these words. For how can one be said to know something if one is not able to mention its criterion by means of which one can distinguish it from other things and which is therefore a part of the meaning of the term representing it?⁴ But this conflicts with what is asserted in (1) above. If we do not know what we mean by truth and falsity, what it is we are finding criteria of and how can we say whether a suggested criterion is a correct one of our thing in question or not?⁵ To get over this apparent contradiction, we have only to see that we *implicitly* know the meanings of truth and falsity and also their criteria but we do not *explicitly* know them.⁶ We also are aware of this situation that the criterion of truth is somehow a part of the total meaning of truth which we implicitly know so that if different characteristics are suggested to us as possible criteria of truth we can say which of them are correct ones and which are not. (Same regarding the criterion of falsity).

Our task here is then to propose certain possible criteria of truth and see which of them is entailed by the meaning of truth that we implicitly know. Thus shall we be explicit about the criterion of truth, which along with the total meaning of truth, is at present only implicit in our mind. The implicitly known seeks to be explicit and hence the posing of the question. The answer that will express the implicit will

be found to satisfy the mind that recognises what it at present knows but implicitly. We may explain the distinction of something implicit from its being explicit by means of an example. You may be knowing a person in such a manner that you cannot quite recall his features and so, cannot describe him. But if you search for him amongst a number of persons passing before you, you can identify him, if he is there. You can identify his portrait if it is presented to you along with a number of other portraits. We may say here that you implicitly knew the person you have identified, but now you have explicitly known him. And that your identification is correct is to be known only by reference to the implicit knowledge of him you had before the event. The person or his portrait *answers* to the implicit idea of him that you had in your mind. This idea led you to seek and identify the person. Similar situations arise when we forget or get mixed up some name and we suggest to ourselves a number of names to get what we want. In the same manner the implicit idea of the criterion of truth that we have at present in our mind and that is entailed by the total idea or meaning of truth, which is also similarly present there, seek to be explicit. That is, the mind, being aware of them as only implicitly in it demands their explicit awareness. And, so, generally and very indefinitely, guided by this implicit awareness of truth and its criterion, the mind suggests some objects to see if any one of them answers to the implicit idea of the criterion. The object that answers is also entailed by this implicit idea of truth, so that the correct suggestion, while serving as the explicit form of the criterion, also serves to explicate the idea of truth. With the identification of more criteria the idea of truth becomes more and more explicit or well-defined in the mind. So that the mind knows the criteria and the thing of which they are criteria from before, but it knows these only implicitly and the mind recognises their explicit forms as it discovers or hits upon certain objects amongst those it suggests to itself as possible criteria. Any explicit form of criterion is directly known by the mind to be the correct answer to the question, "What is the criterion of truth?" And so, by implication, to be a correct explication of the meaning of truth. It knew the answer implicitly but now it knows it explicitly. So long as the mind is not sure of this it cannot know or articulate anything. It may go wrong sometimes mistake something to be the explication of what is implicit, but it can also correct its mistake. We also mistake some perceptual object such as a person seen from a distance or a name spoken or written down in a hurry, for what we really wanted, that is what correctly represents the impli-

cit idea of the person or name we have in the mind. But we can detect our mistake and correct it by an appeal to our memory and judgment. If in a certain case we cannot thus correct ourselves but stick to our mistake, it is a sign that we have a false idea of the person or the name from the very beginning and we have to unlearn it and learn the correct things through fresh contact with them or through consulting other persons who know them. In fact, other persons can help to point out to us our mistakes of this nature. So that whether one is correct in one's identification of the criterion of truth (and so, of its meaning, to the extent the criterion is a part of the latter) is to be finally known by an appeal to others, though it is initially known to be correct by one's own commonsense. In philosophy, therefore, an individual thinker, after discovering the criterion or meaning of something like truth or falsity, must place it before others to see if he is not mistaken about this discovery. The scientist adopts the same method of confirmation with regard to his discoveries. He communicates his experimental results to others and if they too find the same results after performing the experiments themselves, the discovery in question is said to be true and not a fabrication. However, what we wished to point out here is this that though one may make mistakes in identifying or recognising the criterion that is implicit in one's mind, this should not impair one's trust in this method of finding the criterion just as certain mistakes committed in observation by individual scientists and detected by others do not affect their general reliance on the observational method of scientific research. And now one might raise another objection to our proposed method of finding the criterion of truth or falsity. It is this that one may not have the awareness of anything implicit in one's mind regarding the criterion and, so, may not recognise the correct criterion when it is suggested to one's mind. Our reply to this is that in that case one does not know the exact nature of the question at hand and cannot set about to answer it. We are not concerned with such a case as the scientists are not concerned with the evidence of a person, with regard to the question of a particular pitch of sound, who cannot hear it. It is enough if there are many who agree on it. Particular capacities and knowledge are the precondition of a particular kind of enquiry, and a person not competent to answer a certain question, because of his lack of the proper equipment to follow and deal with it, cannot constitute enough of an objection to the general method of solution of it. It is sufficient argument for the method of solution if there are many others with the requisite

equipment and if most of them, following this method, arrive at some one particular solution.

II. *Criticism of the traditional solutions.*

Now the question is, what might be the criteria of truth and falsity? To say that it is correspondance and non-correspondance respectively with *what is really there* is to explicate just a little the meaning of truth and falsity of a perception. To make this statement descriptive of the required criteria one has to indicate in what manner can we decide whether something ostensibly there corresponds or not with something really there. That is to say, how can we know what is really there as distinguished from what is ostensibly there and taken, but not known, to be true? If we can know this reality behind the appearance we can easily judge whether the latter corresponds with the former or not and, so, is true or false. Now can it help if one said that what is really there is also as much perceptible as what is ostensibly there? No, for then one would have perceived the two together and there would not have any question of one's believing that one has only taken something for truth but not known it as such and that one stands to correction. To say that we perceive what is really there is to say that truth is self-evidential. But truth is not so. An ostensible perception only produces in the perceiver's mind a belief in its truth just as an advertisement for an article does a trust in the latter's worth. But just as an advertisement for a particular brand of tooth-pasté is no reliable guide for one who wants a good tooth-paste so is the case with bare perception with regard to our decision as to its validity. With regard to falsity, this would be also self-evidential in the above situation when what is really there is said to be perceptible. It would be like the falsity of a bank-note I deliberately imagine to be in my empty purse. But this is palpably wrong for a perception is not known to be false in this easy and transparent manner. Falsity is, however, not claimed to be self-evidential in exactly the same sense in which truth is sometimes done, for what we take to be false is so taken only when it is cancelled by *another* perception (as the illusory snake is done by the rope-perception) which is then to be self-evidently true. Still it is sometimes claimed that this cancelled or sublated percept is false self-evidentially in the sense that it has withdrawn itself from our presence and nothing more is required to convince us of its falsity. But this is also not satisfactory for we do believe that what has thus condemned itself might be true. So that unless it is proved against us that our belief that our perceptual knowledge and illusions

are but taken to be true and false respectively and not known to be so and, therefore, open to correction, is just an idle belief, we will not abandon it and accept the self-evidential theory of truth and falsity. In fact, we mean one thing by "taking a percept to be true" and quite another by "knowing it to be true" and the self-evidential theory of truth seeks to obliterate that difference. This we do not approve as meanings cannot be changed by any philosopher's theory. And if the philosopher and his followers disregard this distinction in meaning they only succeed in creating a special vocabulary for their private use and cannot convince others.

So that it would not do saying that what is really there is as much perceptible as what is ostensibly there. It is sometimes said that what is really there behind a true perception is an imperceptible entity which is the proper cause of the former while in case of illusions, like that of a snake in a rope, there is no such proper cause behind the ostensible perception. (In the case of pure hallucinations too no proper cause is to be found, for in the locus of the hallucination there is only air and, so, one would find only the imperceptible entities that cause air). But this will not do. For, *first*, such an imperceptible cause of a percept is only imagined when perception is pictured after the phenomenon of reflection in a mirror. But this way of regarding the situation is wholly gratuitous and the analogy is weak in so far as the percept does not appear to be caused either by any external agency, as a material object is done, or by the perceiver's mind, as the mental object in that mind (such as thoughts and volitions) are done. No, a percept appears to be simply given. The percept is of a natural phenomenon which is caused but the latter's being perceived cannot be said to be cause. For the simple reason that this does not appear to be a natural phenomenon and then this alleged cause is never found but merely imagined on the analogy of a mirror-image. But while this image has a real perceptible cause in the form of an object the percept has no such cause and to insist that it has one, though an imperceptible one, is to dogmatise. This is, again, confusing a pictorial meaning with a cognitive one, for the cause of a percept may be picturable after the cause of an image but it is not cognisable. *Secondly*, even if we grant this imperceptible cause of a percept, that is admit it to have some cognitive meaning, it is a worthless criterion for the obvious reason that a criterion must be capable of being used by normal people and not reserved for a few extra-ordinary persons blessed with the power to intuit metaphysical entities. So that the causal theory of origin of knowledge, leading to a representative theory of its nature, offers us the alleged imperceptible

cause of a true perception as the original of it and, so, as what is really there. These theories are mistaken and so are the answers based upon them to the question of what is really there or of a criterion of true perception. This, again, is to be directly seen if we consider the meaning of the criterion of truth. For to know a perception to be true is not to know any supposed cause of it, whether perceptible or imperceptible, and to compare the percept with this cause. As seen before we do not really mean anything by this cause of a percept. And then we do not mean by this "knowing of truth of a perception" any sort of occult or super-normal apprehension but something quite natural and available to normal-people who use the expression.

Now one might suggest that what is really there behind any of our ostensible perceptions are neither as obviously presented as the latter nor for that reason as occult as the metaphysical entities. It is a subtle thing to be inferred from certain effects produced on scientific instruments. Thus, for instance, that there was really a phantom over there what appeared to me to be there may be proved if I can produce a photograph of the phantom. It is admitted here that the phantom, if it is real, must reflect diffused light like any other opaque object and, so produce an image on the photographic plate of a camera. Again, whether I have really seen a series of red flashes at a distance and heard loud shrill cries will be proved if I can produce a record of these on colour and sound films. It is admitted that electro-magnetic waves of certain particular length must be the cause of a true perception of red colour and these must produce the corresponding records on the colour film, while air-vibrations of a certain form must be the cause of a true audition of shrill cries and these must produce the appropriate records on the sound film through the photo-electric and other instruments. But is this criterion of what is really there and, so, of testing a percept for its truth, acceptable? No, for what is really there may not be an effect of a cause, no matter whether gross or subtle. The phantom, the red colour and the cries that I perceived, or for that matter, the angels and other miracles that the saints and pious souls saw sometimes individually but often in association with others, may not have any physical basis or cause, and, so, these may not be able to produce such effects as are considered to be the scientific proofs of their true existence as distinguished from their appearing to exist. And now to say that a colour having no electro-magnetic waves associated with it is no real colour and a sound with no air-vibrations to back it is no real sound is to define these objects of perception rather narrowly and dogmatically. For in so defining we are using the empirical generalisations made on the basis of experience. Colours

have been found to be constantly associated with some waves producing other effects, only in the case of those colours as have been perceived in dreams or abnormal states of the body and mind this association has not been found. But from this one cannot conclude that when I, either individually or along with others, perceive, in quite normal condition of my body and mind (as proved by other activities of mine during that time) a colour or a sound having no wave associated with it, I or my fellow perceivers are having illusions. For the association of a colour or a sound with a wave or some sort has not been established for cases like this. To insist that colours and sounds that have no basis in some sort of vibration and that produce no record on a film are not true colours or sounds is to indulge in a piece of free and illicit definition for one's private use. It would be like saying that a friend who does not always use sweet words is no friend. Such a bold procedure means giving up the original question, *viz.*, "What is the criterion of truth?" and posing a new one, *viz.*, "May we not define truth of a perception by the possession by the percept of a subtle cause which can leave its mark on sensitive instruments?" Clearly enough, this is neither here nor there.

May we not say that coherence of a percept with other percepts is the mark of its truth? Thus if I wish to know whether the fire I have just seen there and have taken for truth is true I have only to see if I can find certain objects which are causally associated with fire in general, such as, heat, smoke, oxygen, combustible substances and ashes. If I find no ashes, nor smoke nor warmth in the place where I saw fire from a distance a moment ago I shall naturally doubt my seeing. A scientist will be much perplexed if he sees floating on water a piece of iron that looks like one and gives the same values for its density and conductivity as iron is known to possess. He will say that he hardly believed his eyes when he saw the piece floating on water. So will a person say who sees, either alone or along with many others, a saint walk over fire unburnt or over water undrowned or rise from death. Only a few years ago an Indian *yogi* used to show before large gatherings and under the direct scrutiny of the renowned scientists feats of miracles like taking concentrated nitric acid, potassium cyanide and other poisons with perfect ease. The scientists said they could not believe their eyes. So that we reject in practice the percepts that do not cohere with others. Miracles are not daily occurrences and we either do not believe in the past miracles or explain them by mass-hypnosis. Yet there is no strict logical justification for this procedure. For no logical relation subsists between one percept and another which are thus not necessarily connected but merely found to

be associated in experience. Such causal associations, though regular, are but empirically grounded and, so, contingent. So that we cannot reject any percept as false on the ground of its not following any of these laws. Such irregular phenomena as well exist by the side of the regular ones. And to insist that they must not be admitted into the rank of the true or the existent because of their irregularity is to fall into dogmatic and private definition of truth and existence, which procedure, as we have shown, is worthless. That a true percept must cohere with other percepts cannot be proved from experience and it does not follow from the notion we have of perceptual truth. Rather it circumscribes and impairs the accepted meaning of truth of perception.

There is another difficulty in coherence theory as presented by the idealists. The criterion of coherence when applied in a concrete situation to give us knowledge of truth of a perception, can yield but a certain degree of this knowledge. This is because we cannot exhaust the infinite links in the chain of verifying perceptions and there will always remain the contingency of our meeting in the future a series of evidence up-setting our previous conclusions. This is, however, a minor difficulty. We could reconcile ourselves to it by admitting that perhaps no criterion is capable of giving us absolute certainty with regard to truth and falsity of a perception. For the application of the criterion presupposes the presence of certain items other than the perception to be verified and we might in a given situation either lack the adequate amount of these items or get so huge a quantity of them that we cannot use them all. This does not necessarily prove any defect in the criterion itself but only that in the nature of things. We are not always provided with an amount of evidence that is neither too small nor too large for our purpose. The criterion should be held worthy if it is definite and applies on its materials with sureness. Of course a criterion that yields good result with a comparatively small amount of such materials as usually accompany our perceptions is better, but this is only a matter of degree and perhaps we can hardly speak of a criterion that is perfectly accommodating and yields certain knowledge of truth and falsity of a perception in all circumstances. So that judged in this way the coherence criterion, giving us only a certain degree of knowledge of truth and falsity, may not be condemned on this account. But some advocates of this criterion maintain that truth and falsity are themselves matters of degree and absolute truth and falsity are but abstractions. This, however, creates genuine difficulty for the theory. For, we know that what is true or false is absolutely so and it is not truth and falsity but only our knowledge of these that has degrees. This follows from the very meanings of these

words and to play fast and loose with the ordinary use of words does not help any philosophical problem.

So that the coherence theory has failed to provide us with our required criterion of truth and falsity. Can the pragmatic theory succeed in this trial? No. For if the pragmatist says that what leads to successful practice is true, his criterion is coherence which we have found wanting. For how can one know whether something has succeeded in practice but by examining how it has fitted with other facts of life including our anticipations regarding it? A pen, mistaken for a pen-knife, will not work in practice as it will not cut bread or paper. But the pragmatist sometimes means by a perception a "plan of action" and not what it does mean, *viz.*, the cognitive basis for a possible plan of action. And now he maintains that the true percept is that which, as a plan of action, succeeds. But this is wide of the mark. For a percept, like that of my pair of scissors, may not succeed in cropping the hair of my child as I wish it, not because I have mistaken something else for a pair of scissors but because I am not trained in the barber's art and the child, instead of co-operating with me, will throughout resist my best efforts. There are many other factors besides a true perception to determine the success or failure of a plan of action started on the basis of the perception, and, so, the success or failure of the plan is no sure mark, of the truth or falsity of the perception. To press, however, that this must be the criterion is, again, to imply a new definition of truth and falsity, and, so, to step out of useful discussion. Some pragmatists go to another extreme and maintain that the true percept is what ultimately satisfies us. But this is clearly a criterion of no cognitive value as it reduces truth and falsity to matters of feelings, emotions and mere beliefs. What satisfies me may not satisfy others and what satisfies all of us to-day may be discovered to-morrow to have produced painful consequences and, so, declared unsatisfactory. To insist that truth and falsity are essentially relative and not absolute is to violate the rule of useful discourse and to embark upon a separate subject-matter.

III. *Our Answer to the Question :*

But now that the principal answers to our question are disposed of, what remains? If we do not find a tolerably good answer we shall have to doubt the very ground of our question. This ground, we may remember, is our belief that what we ordinarily perceive is only taken for truth but not known to be such. If, however, we do not find any means to know this truth, can we still maintain this belief in our

knowledge of perceptual truth?" Might we not say then that we mean something by truth but cannot know anything for truth? So that now we ask the plain question of fact, do we ever know anything for truth? The answer to this will settle our present problem and our answer is, *Yes, very often and many things*. Whenever we are in the company of others and refer in our conversation either directly or indirectly to perceptible things about us, the tables and chairs, animals and other objects that meet our eyes, and whenever we agree about them, and almost always we agree, we know them for truth. Thus have we known, and not merely taken, for truth, the familiar objects about us, and thus do we go about to know for truth or verify any new object given to our individual perception. So that the criterion of something being really there is its being perceived by other persons as well besides me. This is well-known and widely accepted by most persons though some highly sophisticated ones suspect it. But their suspicion is artificial. For the commonly held meaning of the phrase, "knowing some percept for truth" is getting it corroborated by other perceivers. It is not any of the meanings previously considered as severally offered by the theories that truth is (1) self-evidential, (2) consists in correspondance of a percept with its so-called proper and subtle cause, (3) correspondance with its proper but occult cause, (4) coherence with other percepts, and (5) workability in practice. All these meanings of knowledge of truth (and falsity) are artificial and lead to false criteria of these characteristics. To insist with regard to any one of them that it yields a true criterion and, so, that to know a percept to be true is to know it as verified by this criterion, is to take liberty with our conception of truth. But the meaning of knowledge of perceptual truth that we have offered here in terms of corroboration by other persons does not prejudice our commonly held notion of truth and falsity. A true percept cannot be conceived to be uncorroborated by a company of perceivers as it can be so conceived to be either not self-evidentially true, or unassociated with any subtle cause like electro-magnetic waves or with its usual gross causes and effects, or, again, with success in practice. It is inconceivable that there is really a tree over there yet a number of persons are not agreeing on it. Of course here it is assumed that the persons are normal, agreeing on many other things, and that the perceptual object in question is within easy reach of their perceptual faculties which are directed on it. It is obvious that if there is really a tree there a number of persons consulted on this point must, on examination of the object in question, give their unanimous verdict regarding its presence. To argue that since there is a possibility of any one person's suffering

an illusion, therefore, all of them might suffer the same illusion, is perhaps disingenuous. For, in a particular situation, the fact of one's having an illusion is proved by other's having the true cognition. To argue that since every one of the company has at one time or another in his or her life has suffered illusion and, so, in a given situation where they are jointly deciding an issue, they might all go wrong, is clever but unconvincing. For if we calculate the probability of such a contingency it will be almost nil while the probability that what we agree upon to be there is there will be extremely high. It will be readily seen that since there are a great many psychophysical factors conditioning our perception of an object, if two persons make out the same object, it is highly improbable that they have worked on two different and mistaken lines and only accidentally come to an agreement. It is highly improbable that two persons doing a sum, involving numerous items and steps, come to an identical result which is yet false. The probability of their making the same amount of mistake is very small. Now the probability of a correct perception or answering of a sum is enormously heightened if the number of persons perceiving or doing the sum increases. Now think of a very complex sum of numerous items and steps being given to five persons and four of them arrive at some identical answer while one at some other. Should we not be sure that the former answer is correct while the latter incorrect? In fact considerations like this, namely, that though numerous factors determine our perception yet all of us almost always come to the same perceptual judgments, have led us to our convention regarding the meaning of verification or knowledge of truth of a perception. The convention is, to repeat, that a perception is said to be known or verified to be true or false if it corresponds with what a few others have perceived to be there or not there respectively, or more simply, by the criterion of validity of a perception we mean its corroboration by a few others. The probability of a perceptual judgment being true increases so rapidly with a small increase in the number of concurring perceivers that it is useless to go in search of further witness of an object or event if we have, say, four or five such. The evidence of this number of persons on something being there or not, if in agreement, is equivalent to a verdict and it will be sheer pedantry to regard it as a *probable* truth and not a sure one.

However we have only sought to indicate why man has adopted the convention regarding the meaning of knowledge and criterion of truth. The long experience of our race has shown that what five persons perceive is also perceived by a thousand and what the former declare as false is also so declared by the latter. Such disagreement

and doubt as are found in the region of moral, political or religious matters are unknown in the perceptual field where we are concerned with the existence or non-existence of such common objects as a chair or a table. (We are not concerned here with the philosopher's sense-data which vary with persons just as we are not concerned with the sensations and feelings and religious beliefs of persons.) We have here also sought to give some sort of sophisticated defence of this common-sense notion of confirmation of a perceptual judgment against a sophisticated attack on it. In this connection we have considered the probability of a perceptual judgment, agreed upon by a few persons, turning false, considering the process involved in a judgment of this kind as a very complex affair involving numerous elements. We have found that this probability is practically nil.

But all these considerations that we have brought to back up the criterion we have offered here are in one sense superfluous. For if one sees that we, people in general, *mean* by a criterion of truth this what we have mentioned here, then one cannot but think of any other answer to our question. It is useless for anyone to seek to refute it as one cannot change our mode of thinking and behaviour so easily. Philosophy can serve man by clearing up his confusions regarding certain concepts that have appeared from time to time because of his falling a prey to verbal and pictorial analogies and false abstractions. Philosophy itself is partly responsible for many of these confusions, pseudo-questions and false answers, and true philosophy, by a clear analysis of the meanings of the key-words involved in a certain area of discourse and by a continuous reference to our commonsense and to the plain meanings of words, manifests the confusions. Philosophy as an intellectual discipline cannot establish new convention about meanings of familiar and significant words. Berkeley sought to change the meanings of perception and existence while Hume those of causality and self but both failed. For a philosopher does not discover new facts or experiences like the scientist, and the religious or ethical genius, who may coin new words, to represent their discoveries or change the meanings of old words to accommodate new aspects of things revealed by them. Such philosophies as mysticism, speculative metaphysics, existentialism or phenomenology, which seek to augment our experience instead of clarifying it, and which therefore introduce new words and meanings, are a mixed kind of literature. They persuade us to see various things which are mostly their inventions and not genuine discoveries and so they seldom convince anybody. While the scientists, and to some extent, the prophets, convert man to their faith because of their genuine discovery of objects, either of the external world or of our

mental one, which they demonstrate to be there though hitherto unnoticed by us, the constructive philosopher only imagines things to be there. Their efforts to convince others fail and they succeed only in creating confusions and sementing dislocations. But analytical philosophy, such as we have adopted for our treatment of the question of truth and falsity here, seeks to show the meanings of words and phrases that we all know yet about which we have sometimes vagueness and confusion. Its method is to present before us the clear and distinct meanings and to help us to recognise them as the right ones. The individual analytic philosopher, by introspective search into his own consciousness and also looking into the ordinary usage of the words like truth and falsity, good and bad, brings out the meanings of these words and presents them to his fellow beings who may then recognise them to be the right ones. It is assumed here, what may be admitted as a given fact, that there *are* these meanings in our minds and the individual thinker only discovers them for others who will readily recognise them to be already in their minds though not distinctly grasped. They will accept these meanings as answering to those they had in their minds in an implicit form. If one has no such meanings so that one cannot judge whether that offered by an individual thinker is correct or not, then one has to learn the meaning of the word in question from his society. It is a fact, however, that most persons know, implicitly or explicitly, the meaning of truth or falsity, and they can appreciate and judge the efforts of an individual investigator like the present one. It is to help *them* that an enquiry of this nature is undertaken and it is on *their* judgment that the correctness or incorrectness of the results of the enquiry rests. Even good poetry, it is said, should come, like a whisper of memory to us, presenting us things we implicitly have in our minds and so can readily accept as true; a good poet does not impress us with novelty but with truth. Poetic imagination is not fabrication but revelation and, so, distinct from fancy. So that as the poet helps man to *recognise* some of the latter's feelings and sentiments so does the analytic philosopher help him to *recognise* some of the important meanings or concepts, severally represented by such words as truth, beauty, goodness, self, world, existence, etc.

PRITHVIRAJA CHAUHAN

A plea for a revised study

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No crowned head of mediaeval India is perhaps associated with greater fame and glory in popular minds than Prithviraja Chauhan. Many legends have grown around him extolling his various exploits in love and war. Chand Bardai, a contemporary bard, in his epic *Prithviraja-Rasa* recalls various achievements of his patron, the last chivalrous Rajput king of India. The contemporay poem, *Prithviraja-Vijaya*, probably composed by a Kashmiri poet resident in the Chauhan Court and *Hammira-Mahakavya* written by Nayachandra Suri in the 14th century are also replete with many anecdotes and materials connected with the life of the most valiant among the Chauhans. But a close and unbiassed study of contemporary records other than the bardic Rajput chronicles reveals the fact that Prithviraja has been the recipient of an undeserved celebrity.

In the opinion of V. A. Smith Prithviraja "is the popular hero of Northern India and his exploits in love and war are the subject of rude epics and bardic lays to this day His fame as a bold lover rests upon his daring abduction of the (not unwilling) daughter of Jaichand the Gaharwar Raja of Kanauj".¹

The traditional account of the circumstances leading to the conflict between Jayachand Gaharwal and Prithviraja Chauhan, viz., the abduction by Prithviraja of Samyogita, daughter of Jayachand does not bear scrutiny and is unknown to sober history.² The *Rasa* account that Prithviraja and Jayachand were two grandsons, through daughters of Anangapala, the Tomara king of Delhi, is equally untenable. The statement to the effect that Prithviraja and Samarsingh of Mewar were contemporaries cannot also be accepted as a sober historical fact. While C. V. Vaidya³ regards the *Rasa* story of the Swayamvara as "too enchanting to be true", he is not inclined to discard it altogether. Says he "it is difficult to reject it altogether as some do and we believe

¹ V. A. Smith, *Early History of India*, 4th Edition, p. 402.

² *J.A.S.B.*, 1887, Vol. LV, pp. 5-65; *J.B.R.A.S.*, 1927, pp. 203-11. H. C. Ray, *Dynastic History of Northern India*, Vol. II, p. 1085 and Tripathi, *History of Kanauj*, pp. 325-26.

³ C. V. Vaidya, *History of Mediaeval Hindu India*, Vol. III, p. 324.

that Prithviraja to whom Samyogita must have communicated her love like Juliet, by a sudden raid on Kanauj, must have carried her off". Such a conclusion appears to be based more on what may be termed flight of poetic imagination than on ascertained historical data. The contemporary author of *Prithviraja Vijaya* does not include Samyogita in the list of Prithviraja's queens. But while the historicity of the Swayamvara episode is open to serious doubt, that there was hostility between the Chauhans and the Gaharawals cannot be denied.

The Madanpur stone Inscription ⁴ of Prithviraja dated Samvat 1239 (Circa 1182-83 A.D.) testifies to his conflict with the Chandella King Paramardideva. They show that Prithviraja had invaded and plundered, if not annexed a large portion of the Chandella territory beyond the Betwa. There is also evidence to show that there was friendship between the Gahadavalas and the Chandellas, and as suggested by Dr. H. C. Ray ⁵ "the struggle which according to Chand was opened with the battle on the Pahuj may well have been a duel between two allies on the one hand and the Chahamanas on the other." The Mau Inscription of Madanavaraman Chandella ⁶ states that "though dread of him the King of Kasi always passes his time in friendly behaviour."

The conflict between Prithviraja and Jayachand was but an episode in the long drama of inter-state rivalries which had been an unfortunate feature of Indian history since after the disruption of the Pratihara imperial structure. Apart from the Swayamvara episode, the concluding portion of the Rasa account is also incompatible with known facts of history. According to Chand Bhat, Jayachand felt so much insulted consequent upon the abduction of his daughter by Prithviraja, that in order to wreak vengeance on the Chauhan rival, he called to his aid Shihabuddin Ghuri. Shihabuddin responded to the invitation of Jayachand, marched against Prithviraja, was defeated by him in the first battle, but won a victory in the second encounter which cost Prithviraja his life and throne.

The authenticity of this version of the Rasa again is open to serious doubt. Indian tradition is by no means unanimous on the subject. According to *Prithviraja-Vijaya* the prince who incited Shihabuddin Ghori to action against Prithviraja was not Jayachand, but Bhima II, the Chaulukya prince of Anhilwara. Besides Moslem historians do not make mention of any alliance between Jayachand and the Ghuri chieftain. On the contrary the fact that immediately after

⁴ *Archaeological Survey Report*, Vol. XX, Plate XXXII, Nos. 9, 10 & 11, *Ibid.*, Vol. XXI, pp. 173-74, Nos. 9-11.

⁵ *Dynastic History of Northern India*, Vol. II, p. 1085.

⁶ *E I.* Vol. I, p. 198, V. 15.

the fall of Delhi, the Moslem army captured Kanauj and drove away Jayachand, seems to indicate that there was no alliance between the two.

The conflict between Prithviraja and Shihabuddin Ghuri was a critical and decisive event in the history of mediaeval India, but there is no reason to suppose that the motive-power behind it was a desire on the part of one Indian prince to wreak vengeance on another. The conflict between the Chahamanas and the Moslems had its root deep in the past and the events of 1191-1192 were the logical and inevitable outcome of a process which had been at work for a long time past. Evidence is not lacking to show that the struggle was at least two hundred years old. The *Prabandha-Kosa*⁷ of Rajasekhara credits the Chaumana prince, Govindaraj, with a victory against Sultan Mahmud. Nearly a century later another ruler belonging to the same dynasty, Durlabharaja III was, according to *Prithviraja-Vijaya*, killed in action while fighting against the *Matangas*. If the commentator Jonaraja is correct in equating Matanga with Mleccha, then probably the action, referred to above, was a fight between the Chahamana ruler and the Moslem forces. Another prince of the same dynasty, Ajayrajā, according to the same source, is believed to have defeated a Moslem army towards the first quarter of the 12th century A.D. His successor, Arnoraja, claims, the author of *Prithviraja-Vijaya* (Sarga VI), once defeated the Matangas and made a great massacre of the Turuskas who had come from across the Marusthali or the desert. It appears that the target of the Moslem invasion was the temple of the sacred Puskaratirtha, but the invasion was repulsed as Arnoraja claims to have purified the place by constructing a lake on the battle-field. The Chahamana-Moslem struggle assumed a serious character when Vighraharaja IV (1153-1164 A.D.) annexed the Tomara Kingdom of Delhi to his dominions, thus bringing them in contiguity with the Moslem-occupied areas of the Punjab and the neighbourhood. The Delhi Siwalik Pillar Inscription of 1164 A.D.⁸ claims on behalf of Vighraharaja repeated and smashing victories over the Mlechhas to such an extent that he made Aryavarttha "once more the abode of the Aryas". Reminiscences of a conflict between the Chahamana and the Moslem armies are also preserved in the pages of *Lalita-Vighraharaja*, composed by Mahakavi Somadeva⁹ in honour of Vighraharaja (Acts III & IV). That the revival of the Moslem power under the House of Ghur had become a serious menace to the integrity of the

⁷ *J.R.A.S.*, 1953, p. 269, fn. 2, see also *Bombay Sanskrit Series No. XXXIV*, Introduction, p. CXXXVI.

⁸ *Indian Antiquary*, Vol. XIX, pp. 215-19.

⁹ *I.A.* Vol. XX no. 20 ff

Chahamana dominions is borne out by the Hansi stone Inscription dated 1168 A.D.¹⁰ It yields the information that thinking of "Hammira, who had become the cause of the anxiety of the world", Prithviraja II, the successor of Vigraharaja, placed his maternal uncle, Kilhana, in charge of the fort of Asika or Hansi.

Thus there is ample evidence to show that Prithviraja had inherited the legacy of an enmity with the Muslims, an enmity of a long-standing character which need not and cannot be explained in terms of Jayachand's invitation to Shihabuddin Ghuri. The conflict arose out of the determination of the Muslims to seek aggrandisement at the expense of the Chahamana territories—a position which the Chahamanas could ill afford to ignore. In the first conflict that followed, even the Moslem Chroniclers admit, *Rai Pithora* came out successful, but the *Rasa* account that Shihabuddin was many times captured in battle and at each time released and sent back by Prithviraja cannot be accepted as correct in the absence of corroborating evidence. The second Moslem attack, delivered shortly after, however, ended in the defeat and capture of the Chauhan leader. According to the testimony of the contemporary work, *Tabaqat-i-Nasiri*, "The whole of the Ranas of Hind were along with the Rae Kolah". This statement has led some scholars including Prof. D. R. Bhandarkar¹¹ to believe that Prithviraja had organised a Hindu confederacy in his resistance against the Muslim invaders. Such a conclusion is, however, not warranted by the evidence of materials at our disposal. C. V. Vaidya¹² is right when he says "there is no corroborating evidence from epigraphic records to prove the confederacy". On the contrary evidence points to the fact that the relations between the Chahamanas and the Chaulukyas¹³ on one side, between the Chahamanas and the Gahadavalas on the other, and that between the Chahamanas and the Chandellas had been definitely hostile and in the circumstances it would not have been possible for Prithviraja to bring the impact of a concentrated, united resistance to bear upon the struggle against the Moslem aggressors. Evidence is also lacking to show that the Chahamana leader even made an attempt to that effect.

There is no doubt that Prithviraja fought valiantly against the Muslims. The tragic circumstances in which he died at the hands of the conquerors no doubt lent colour to the pathos felt almost universally

¹⁰ *I.A.*, 1912, pp. 17-19.

¹¹ Cf. D. R. Bhandarkar. "He (Prithviraja) solicited the kings of North India to join his confederacy, and they all did except, of course, Jayachandra."

Proceedings and Transactions of the 4th Oriental Conference, 1926, Vol. II, p. 762.

¹² C. V. Vaidya, *Mediaeval Hindu India*, Vol. III, p. 331.

¹³ *Vyago Partha-Parakrama*, GOS, NO. IV, 1917, pp. 11 and 3 and *Rasa*, Vol. I, pp. 202 ff.

at his sad fate. But in reality the fame of Prithviraja far transcends his actual achievements. He came to the throne at the bare age of fifteen and it appears that his reign had a brief span of 15 years only. Young and experienced, he had inherited a legacy of war with the Muslims. And when all his attention and the attention of his neighbours should have been focussed on how to meet the common menace of the Muslim invasion, he chose to fritter away his resources in desultory warfare with his neighbours, against only one of whom, *viz.*, Chandella Paramardideva he came out successful.¹⁴ It is doubtful if Prithviraja had the capacity or even the intention to appreciate the nature and extent of the problems with which he was confronted. Not only did he fail to realise the importance of organising an united resistance in common with his brother-princes, he even neglected to enlist the support of allies who had hitherto been loyal to the Chahamanas. Even the apologist Chand admits that his vassals were dissatisfied with his policy and they openly blamed him for troubles in the Chahamana Kingdom.¹⁵ Besides tradition is not by any means unanimously in favour of Prithviraja. Lakshmidhara, the author of a Sanskrit work named *Viruddha-Vidhi-Vidhwansa* who was born in the family of one of the ministers of Prithviraja, conveys the impression that the Chahamana ruler was devoid of any worth and was immersed in vice. The impression that, on coming to age, Prithviraja gave himself up solely to pleasure and neglected his army and royal duties is also hinted in the pages of the *Rasa*. At any rate there is nothing on record to show that Prithviraja occupied a position superior to that of either the contemporary Chaulukya King or the Gahadavala ruler of Kanauj, either in influence or in respect of extent of dominions.

The story of Prithviraj the Chauhan naturally recalls to our mind the fate of another Indian prince born more than five and a half centuries after him Sirajuddowla, the young Nawab of Bengal. Like the Chauhan prince, Sirajuddowla too failed to rise to the occasion and play a role that could be reasonably expected of him, at one of the most critical stages in the history of India and yet was destined to earn a celebrity which was not wholly deserving.

¹⁴ Madanpur Inscription referred to above.

¹⁵ *Prithviraja-Rasa*, Canto LXVI, pp. 385, 387-88 and 400-410.

Reviews and Notices of Books

British Council Publications—Nos. 38, 63, 65 & 66.

- (i) John Galsworthy by R. H. Mottram 2s. No. 38.
- (ii) Charles Williams by John Heath-Stubbs 2s. No. 63.
- (iii) Lytton Strachey by R. A. Scott-James 2s. No. 65.
- (iv) Edward Gibbon by C. V. Wedgwood 2s. No. 66.

The British Council is doing valuable service to students of English literature by offering within the compass of 30 to 40 pages short biographies of important authors, both living and dead, along with an assessment of their achievement in the literary field. The approach to literary criticism in these little pamphlets illustrates a uniformly concrete manner. Nothing is hazarded in a speculative spirit and all that is said is related to facts drawn either from the writer's life or from his work. Thus introduced, the writers stimulate interest and we are led to make a first-hand acquaintance with the books they have written. For this ample guidance is provided by the classified bibliography appended to the pamphlets. They are all well printed and are sold at popular prices. It is unreasonable to expect that much that is new can be offered within the covers of the thin pamphlets but in reading them one has the feeling that the critics are anxious to avoid trite observations and to give instead something that will be a fresh view of the subject based upon an attempt at sympathetic interpretation.

R. H. Mottram was a friend of Galsworthy and a life-long association with his subject tends to make his account slightly more favourable than is justifiable in the light of recent critical opinion. Edwin Muir, for example, is inclined to condemn Galsworthy's fiction wholesale as an example of what he calls *recit* or period novel. Mr. Mottram mentions *The Freelanders* as the only novel by Galsworthy to have been 'unkindly treated by the march of events'. Here evidently he leans to the side of friendship. For with all his good qualities as a writer, Galsworthy's feelings and interests do not seem to achieve adequate expression and they have, therefore, largely lost their power to move us. It is doubtful if we can find much pleasure in reading any of his novels except 'The Man of Property' in which he made an endeavour to paint Victorian Society, which for many years of his life continued to be the theme of his fiction, and was in the main responsible for his emergence into fame. Galsworthy's dramas, about which also Mr. Mottram writes, still retain their vitality. His dialogues are often crisp, clear and effective, his plots though tending now and then to the mechanical, are occasionally capable of surprising and some of his characters are still alive. If Galsworthv

gave evidence in his work of 'an escape from personality', from passionate simple conviction, it is likely that its survival value would have been assured. Mr. Mottram winds up his account by a reference to the religious element in his work and to an allegory, published in 'The Inn of Tranquillity'. Here we have something that well brings out Galsworthy's attitude as writer and thinker. Mr. Mottram has added to the usefulness of his survey by including in it brief and precise summaries of all major novels and dramas by Galsworthy.

Charles Williams—by John Heath-Stubbs:—The pamphlet contains information about a writer of varied achievement who is hardly known beyond academic circles in this country. His poetry is chiefly concerned with the 'matter of Britain', his novels are 'metaphysical thrillers' and his drama in its mature form often resembles the work of T. S. Eliot. His 'Thomas Cranmer of Canterbury' provides a close parallel to Eliot's 'Murder in the Cathedral', both being written for the Canterbury festival, and have a similar subject—the martyrdom of the protagonist. Referring to Williams's sequence of poems on the Arthurian legend Mr. Heath-Stubbs observes: 'It is on these poems, I believe, that any claim for him to rank as a major writer must finally rest.' The critic reiterates his faith that Williams is a major poet in his concluding sentence. It is possible that we may think of him as a very good poet and yet deny him the title claimed for him by Mr. Heath-Stubbs. It has been denied even to T. S. Eliot on quantitative grounds—his performance as a verse writer being meagre. There are other reasons for denying the title even when the standard of bulk is satisfied. Does the poet use language memorably? Does he write with success in some of the chief poetic forms? There is also the question of his inventiveness. Charles Williams's verse is difficult, his theme theological and the attitude in general reveals an insularity not likely to increase his popularity with readers of non-British extraction. His critical work 'Poetry at Present' (Oxford Clarendon Press) contains accounts of 16 recent poets, the list being headed by Thomas Hardy and here we find a rare gift for analysis and interpretation which no doubt will be valued by readers. Mr. Heath-Stubbs does not refer to this work nor to other of his critical studies. This omission is deliberate and is dictated by the view that creative work claims priority in our consideration.

In 1947 the Oxford University Press published a volume containing six 'Essays presented to Charles Williams'. They were not actually presented to him because Williams's death occurred in May 1945. The volume is published with a memoir by C. S. Lewis in the course of which the following statement is made about Williams: 'He was also, though not a professional scholar, one of the best informed of us all and will always stand in my mind as a cheering proof of how far a man can go with few languages and imperfect schooling.' This is perhaps slightly patronizing and contrasts with the enthusiasm of Mr. Heath-Stubbs.

Perhaps the present critic emphasized the poetry rather than the criticism in view of the Oxford Don's opinion and also showed no great warmth for the novels, described as 'spiritual shockers' by Dr. R. W. Chapman.

Mr. Heath-Stubbs brings under survey a varied body of material and discusses it both with tact and economy. If some of his conclusions seem a little too warm-hearted, his general stand is clear, consistent and acceptable.

Lytton Strachey—by R. A. Scott-James:—The biographical element in this pamphlet is slender; the emphasis falls almost entirely upon 'Eminent Victorians' and 'Queen Victoria'. Of the personal habits and character of Lytton Strachey Virginia Woolf has written in her 'The Voyage Out' under the name of St. John Hirst where he is depicted as 'strong, searching, unyielding in mind.' His association with Virginia Woolf and others of the group forms the subject-matter of a work by J. K. Johnstone (The Bloomsbury Group) published two years ago.

Lytton Strachey wrote the biography with a point of view which needed to be carefully sustained. The problem in the main was one of exclusion, to produce order out of chaos. The detachment which he exhibits is often no more than a technical device. In his account of Florence Nightingale the writer gives the main facts of her life. We see the lineaments of a resolute figure gradually emerge. Then he puts on cap and bells and turns this respectable lady into a figure of fun. This is the art of music-hall and Strachey applies it with memorable results to his picture of Florence Nightingale. Strachey's Gordon appears in two different aspects, the one quite ridiculous, the other resolute and of unconquerable strength. To produce his particular point of view in regard to General Gordon, Strachey "neglects or even distorts a few of the facts". Scott-James is a discriminate judge, an excellent appraiser of literary merit and wide awake to faults when they appear. He has shown Lytton Strachey's success as a critic of French literature (Landmarks in French Literature, 1912) and his great triumph in the 'Eminent Victorians'. 'In the fourth year of the war', we learn 'this provocative book vied with the war itself as a topic of conversation'. In writing his next great work 'Queen Victoria' Strachey seems to have less succeeded with his theory of the point of view. 'He came to scoff: and remained to pray.' He seems to have used the privilege of the novelist—his omniscience—in delineating the characters of Queen Victoria, Melbourne, Prince Albert, Disraeli and Gladstone and has succeeded in producing a book of great value. His 'Elizabeth and Essex' is a failure. Scott-James explains the probable causes. They are not accidental things which Strachey could overcome by additional care. His temperament could not do justice to the theme.

The little pamphlet is a highly illuminating commentary upon a genius whose success in the literary field probably owed also to a form of affectation occasionally associated with the name of Oscar Wilde.

Miss C. V. Wedgwood, the author of the pamphlet on Edward Gibbon is herself a historian of standing. Her brief study of Gibbon's life and work is the outcome of extensive reading for years and a genuine admiration for the great historical masterpiece whose value has scarcely suffered "although seven (six) generations of scholars have added to or modified our knowledge of the epoch".

The limitation of Gibbon's genius was that he was a man with an undeveloped heart. This would explain his reconversion to the Protestant religion, his abandonment of the charming Suzanne Curchod, later married to the elderly banker Necker and his attitude to Christianity. Miss Wedgwood stresses the circumstance in her words: "It was not his gift to understand the hearts of men, but it was his duty and pleasure to understand their minds." Fond of pleasure, Gibbon did not take interest in contemporary things. As a boy of thirteen he had studied some earthen-work of the Roman period in England with joy. In 1778 when war with France broke out and Parliament had long sittings, Gibbon who was a member, felt himself like a fish out of water. "I am quite tired of Parliament", he said and told his stepmother that he wished "all external circumstances. . . were as smooth and satisfactory as the temper of my mind." It is curious that a few hours before his death on 16 January, 1794, he declared confidently that he "thought himself a good life for ten, twelve, or perhaps twenty years". These facts, and there are several of the same nature, would seem to suggest that he paid little attention to any thing that belonged to the contemporary world, including his own health. Mr. Peter Quennell has said "he would have been happy in the Age of the Antonines".

Gibbon's 'Decline and Fall' of which the definitive edition was published by J. B. Bury (1909-13) covers in its range a period of thirteen hundred years. The account begins with the age of Trojan and is carried on till the sack of Constantinople by the Turks. As a critic has well said, there is probably no book of equal size and scope more thoroughly imbued with the characteristic quality of a single man's intelligence. Miss Wedgwood thinks the massive volumes are easy to read because of their attention to detail. On the subject of their value much has been said and there is probably no scope for a new observation. Miss Wedgwood has stated the facts with clarity and precision. Her pamphlet though less brilliant than Peter Quennell's 'Portrait' of comparable length, makes a greater impact upon the reader's mind because of the simple, unpretentious charm of her delineation.

SRI C. SEN.

Ourselves

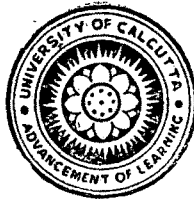
DEATH ANNIVERSARY OF SIR ASUTOSH MOOKERJEE

The thirty-second death anniversary of Sir Asutosh Mookerjee was observed with due solemnity on the 25th May. In the morning there was a memorial service at the bottom of the great statue of Sir Asutosh located in the Chowringhee Square. In the evening there was another service under the marble bust of the great educationist in the Darbhanga Building of the Calcutta University, which was presided over by our Vice-Chancellor, Professor N. K. Sidhanta. The debt of the University to Sir Asutosh is too deep for words. He made this University what it is to-day. The impress of his mind and character is to be found on every department of this institution. Very soon after his death on the 25th May, 1924, Sir Michael Sadler, the Chairman of the Calcutta University Commission, 1917-1919, said in a speech delivered in London: "Asutosh could have ruled an Empire. But he gave the best of his power to Education, because he believed that in education rightly interpreted lies the secret of human welfare and the key to every empire's moral strength." He had a passion for freedom. "Freedom first, freedom second, freedom always" was the most memorable utterance from his lips on the last and the greatest day of his career as the Vice-chancellor of the Calcutta University which he loved so dearly. In January 1957, the University will celebrate its centenary, or the first hundred years of its life. That will certainly be a fitting occasion for recalling the many valuable and distinguished services rendered by Sir Asutosh to the Calcutta University.

CENTENARY OF CALCUTTA UNIVERSITY.

A special programme to celebrate the centenary of the university which was founded on January 24, 1857, is being prepared by the University authorities. The celebrations are expected to start on January 19, and conclude with a special Convocation on the anniversary of the foundation. Addressing a press conference in Calcutta sometime ago, Professor N. K. Sidhanta, the Vice-Chancellor

of the University, said that it was hoped to mark the occasion by the establishment of centenary professorships, fellowships, scholarships and maintenance grants which would be permanent and useful to the University. A serious problem facing the University is the lack of accommodation for the administrative staff, the University College of Science. The University College of Law and the University College of Arts. During the coming year a serious effort would be made to acquire land for a building programme that would extend over 25 years. The housing of the central Library of the University is also an urgent problem. The centenary of the University of Calcutta is of special importance to India as a whole, because it marks the centenary of modern higher education in this country. It is significant that this centenary synchronizes with the centenary of the Indian Mutiny, now known as the First War of Indian Independence. It is significant also that within these one hundred years, the British Government had to transfer power to Indian hands. The establishment of the Universities of Calcutta, Bombay and Madras in 1857 had certainly much to do with the nationalist upheaval which finally resulted in the liberation of the land in 1947.



Notifications

Notification No. C.S.R./21/56

It is notified for general information that the Senate on 24th September, 1955, adopted the changes (as shown in the accompanying pamphlet) in Chapters XXXI (I.A.) and XXXII (B.A.) of the Regulations regarding introduction of certain subjects for women students.

The regulations will take effect from the examination of 1958.

Changes in the regulations relating to the Introduction of the
certain new subjects for women students only for the
I.A., I.Sc., B.A and B.Sc. Examinations

I. CHAPTER XXXI (P. 36) (I.A.)

(a) Insert the following in the list of Elective Subjects under group A of Sec. 7 :—

(x) House-hold Art, (xi) Child-care and Training & (xii) Social Science, and the words "for girl candidates only" be inserted against the name of each of the subjects.

(b) Insert the following in the list of elective subjects under group B of Sec. 7 :—

(xi) House-hold Science (for girl candidates only).

2. CHAPTER XXXII (PAGE 60) (B.A.)

(a) Insert the following in the list of elective subjects under group A of Sec. 6 :—

(x) House-hold Art, (xi) Child-care and Training & (xii) Social Science and the words "for girl candidates only" be inserted against the name of each subject.

(b) Insert the following in the list of elective subjects under group B :—

(xi) House-hold Science.

3. CHAPTER XXXV (I.Sc.)

(a) Insert the following in the list of subjects under Section 7 (5) :—

(xii) House-hold Science (if not taken up as the fourth subject), (xiii) Child-care and Training, (xiv) Social Science and (xv) House-hold Art.

(b) In Sec. 7 (4) the words "Mathematics or Physics" be replaced by the words "Mathematics or Physics or (for girl candidates only) House hold Science."

4. CHAPTER XXXVI (P. 208) (B.Sc.)

Insert the following at the end of Section 6 :—

- (xii) House-hold Science
- (xiii) Child-care and Training.
- (xiv) Social Science.
- (xv) House-hold Art.

CONSEQUENTIAL CHANGES

CHAPTER XXXI (PAGE 36)

(a) Insert the following at the end of Sec. 7 after the para. "No candidate.....Group A" :—

No candidate shall be allowed to take up Elements of Civics and Economics under Group A along with Social Science.

(b) Add the words 'except House-hold Art,' at the end of the sentence 'There shall be: Group A' under Sec. 7 (last para.) and Insert the following sentence thereafter :—

'In House-hold Art there shall be 2 theoretical papers and one practical paper.'

(c) In page 36 insert the words "and in House-hold Art" under Group A " after the word "Group B" in line 3 of Sec. 8.

(d) Add the following sentence at the end of Sec. 8A :

"Provided that in House-hold Art there shall be 2 theoretical papers and one practical paper."

CHAPTER XXXII (B.A. PAGE 64)

No candidate shall be allowed to take up any of the subjects viz., X, XI or XII under Group A and the subject XI in Group B unless he has taken up the corresponding subject for the Intermediate Examination.

(ii) Add the following to the last sentence of sec. 11 "and in House-hold Art under Group A."

CHAPTER XXXV (I.Sc.)

(i) The sentence 'There shall be two papers in Mathematics' at the bottom of page 164 (under Section 7) be replaced by the following :—

"There shall be two papers in each of the subjects Mathematics, Child-care and Training and Social Science."

(ii) After the word 'Mathematics' in line 2 of Sec. 10, insert, "Child-care and Training and Social Science."

(iii) After the word "in each Science subject" in lines 1-2 of Sec. 11 insert "except Child-care and Training and Social Science."

CHAPTER XXXVI (B.Sc.)

(i) Insert the following proviso at the end of Sec. 7 in p. 209:

"No student shall be permitted to take up any of the subjects viz., XII, XIII, XIV or XV under Sec. 6 unless he has taken up the corresponding subject for the Intermediate Examination."

(ii) In line 4 of Sec. 8 (P. 209) insert the words "Child-care and Training and Social Science" after the word "Mathematics."

(iii) In line 7 of Sec. 8 (P. 209) insert the words "Child-care and Training and Social Science" after the words "in Pass Mathematics."

DETAILED SYLLABUS

I.A. COURSE

House-Hold Art

Paper I ... 75 Theoretical + 25 Practical = 100 Marks.

Theoretical—

Art Appreciation—Definition of Art, The elements of a work of art form, proportion, balance, composition, colour, rhythm, content—art in everyday life.

Art and Aesthetics—how to develop aesthetic sense—personal element in Art, social roots of Arts.

A work of art and its appreciation—a painting, a piece of sculpture, a piece of architecture and other creative work.

Practical—

Line cut and stencil, pottery decoration, simple toy making, soft toys wooden toys (fret work).

Paper II ... 75 Theoretical + 25 Practical = 100 Marks.

Theoretical—

Evolution of Art—A short history of the main traits of art in East and West.

Art Analysis—Characteristic features of the Oriental and Occidental Art.

Original Composition—A critical study of some master pieces of art and the masters who created them—in Europe, China, Japan and in India.

Practical—

Black Board Drawing, Memory Drawing, Flower and Foliage painting (water colour), Original Composition, Alpans, Clay modelling.

The above syllabus may be changed by the Academic Council from time to time on the recommendation of the Board of Under-graduate Studies or of a special Committee appointed by the A. C. until such Board is constituted.

Child Care and Training

Paper I ... Child Care and Training ... 100 Marks.

Physical and mental development of the child—concept of mental health. The problems of adjustment to society.

The original equipments of the child; Instincts. Emotions and their development. Sentiments. Different types of activities. The concept of will. Development of speech and language.

Environmental factors. Physical, familial and social problems of discipline.

Learning. Types of learning. Habit formation.

Mental deficiency, Delinquency. Mental Maladjustment, Remedial measures. Restoration to normalcy.

Paper II ... 100 Marks.

Infant and Maternal Mortality—Causes a comparative study. Parental care, advice to mothers. Post-natal care.

Exercises and diet.

Normal growth and development of the baby.

The nursery and its preparation, furniture and equipment. Play materials, the baby's bath and clothing.

Feeding and management—natural feeding, care of the nursing mothers. Weaning. Teething. Artificial feeding and its principles. Modification of Cow's milk to human standard—general directions—vitamins recipes.

Feeding after weaning.

Caloric estimation as supplied to infant feeding. Digestive upsets in artificially fed children—diarrhoea, vomiting, bacillary, constipation, etc.

Common ailments of infants—sore mouth, thrush skin, eruptions, eczema, catarrhal infections, tonsils, etc. Practical demonstrations to be arranged.

The above syllabus may be changed by the Academic Council from time to time on the recommendation of the Board of Under-graduate Studies or of a Special Committee appointed by the Academic Council until such Board is constituted.

Social Science

Paper I ... 100 Marks.

Nature of Society : Meaning of Society—Division of labour—Community, Association and Institution—What Sociology means—the Method of Social Science—Meaning of Social Evolution—Factors of Social Evolution. Society and Environment—Environment and Life—the Physical Environment, the Economic Environment and the Social Environment.

The stages of Society : Classification—the village Community—the City Community—Feudal Community and the Nation Community.

The Structure of Society : The individual, family and other Association : The State as a form of Association—Nature of the State—Purposes and Functions of the State—The Citizen—The Rights and Duties of the Citizen, Government and Law—Forms and Branches of Government—Electorate—Political Parties and Public Opinion. The State and International Organisation—Economic System—Cultural Association.

Paper II ... 100 marks

Evolution of Economic Life—Elementary notions of production, consumption, National Income and its determinants and value and distribution with special reference to allocation of resources—Economic Organisation of a modern Society and its problems—Elementary Principles of Planning—India's Five Year Plans with special reference to Agriculture, Cottage Industry, Large scale Industry and Community Development Projects.

The above syllabus may be changed by the Academic Council from time to time on the recommendation of the Board of Under-Graduate Studies or of a Special Committee appointed by the Academic Council until such Board is constituted.

House-hold Science

Paper I ... Theoretical ... 75 marks

Balance, weight and measure. Specific gravity. Barometer. Vacuum Pumps, Compression pumps Syphon. Temperature and its measurement, Scales of temperature. Three states of matter—changes of state. Principles of Liquefaction of gases; dry ice; Calorimetry. Transmission of heat by conduction, convection and radiation. Thermos-flask, Pressure Cookers, incubator. Heat and work. Reflection and Refraction of light. Reading lenses; Binoculars, microscopes; Telescopes. Propagation of Sound. Musical sound and noise. Human ear. Vibration of strings. Gramophone. Properties of magnets. Nature of Electricity, Properties of conductors and insulators. Electric current. Storage battery. Heating and magnetic effect of current. Electric telephone and microphone. Electroplating. Law of conservation of mass, chemical and physical changes. Elements and compounds, concept of atoms and molecules. Radio-activity. Common Laboratory processes—mixture, solution, crystallization, distillation, evaporation, precipitation, filtration, sedimentation. Air composition, Ventilation, Diseases due to the impurities of air; Purification of air, water-composition, sources. Impurities Purification for different purposes. Properties of Oxygen, Hydrogen, Nitrogen, Carbon Dioxide. Ammonia, Chlorine, Sulphur Dioxide, Sulphuric and Nitric Acids.

Combustion. Cooking by solid fuel. Smoke nuisance, gas cooking, electric Heaters. Catalysis, Colloids, Dialysis, Osmosis.

Acids Bases and Salt, Ionisation, Hydrogen-ion concentration, PH value, Buffer solution, Bleaching agents and methods of stain removal. Soap and other cleansing agents including metal polish. Metals in House-hold uses.

Paper II ... Theoretical ... 75 marks

Introduction: The cell its differentiation, formation elementary tissues. General plan of the human body.

Chemical composition of living matter. General idea of the bio-chemical and bio-physical principles concerned in life processes.

Elementary knowledge of chemical composition of food. Chemistry of Proteins, Carbohydrates and simple Lipides. Study of Calcium, Phosphorus, Iron, Iodine, Sodium, Chlorine, Potassium, Magnesium in different types of food.

Digestion and absorption of food materials.

Nutrition-Metabolism and Dietetics.

Energy requirements under different conditions.

Balanced diet. Nutritive value of common food stuffs, vitamins.

Food—For an infant, a growing child and an adult—preparation and preservation of food.

Paper III ... Practical ... 50 marks

Determination of specific gravity. Reading of Barometer, Determination of melting and boiling points.

Fitting up of simple apparatus. Performance of experiments involving solution, filtration, distillation and crystallization. Preparation of Hydrogen, Oxygen, Carbon Dioxide and Nitrogen. Removal of soluble and insoluble impurities from water. Cleaning of furniture and equipments removal of stains. Washing and ironing of materials.

Simple chemical tests for Carbohydrates: Starch, Dextrin, Glucose, Cane Sugar, Lactose, Maltose—for Proteins (in milk, e.g.), Peptone—for Fat—for Calcium Phosphorus and iron in food-stuffs—Vitamin A and Vitamin C in food. Calculation of Calorific value for any given meal (with the help of tables and food values). Examination under the microscope of flours of some common cereals.

The above syllabus may be changed by the Academic Council from time to time on the recommendation of the Board of Under-Graduate Studies or of a special Committee appointed by the Academic Council until such Board is constituted.

B. A. COURSE

House-hold Arts

Paper I	...	...	...	100 marks
Theoretical	...	50		
Practical	...	50		

Theoretical :

Indian Painting : History of Indian Painting—Pre-Historic, Buddhist, Mogul, Rajput and Modern Bengal School. A comparative study of the different schools of painting in India.

Practical :

Copy from Indian Old Masters.

Original Composition with figures—in water colour, book illustration.

Paper II	...	...	...	100 marks
Theoretical	...	50		
Practical	...	50		

Theoretical :

The fundamental principles of art and its content; art appreciation. Harmony, proportion, balance, rhythm and emphasis.

A study of colour and colour combinations, colour theories—use of contrasting colours—beauty in colour schemes.

A study of decorative designs—structural and decorative design in dress, furniture and architecture.

House decoration—Study of designs and colour schemes for different rooms.

Practical :

Wood cut block making for printing. Pottery decoration. Alpanas. Toy making. Lino cut, Decorative design.

Paper III	...	...	...	100 marks
Theoretical	...	50		
Practical	...	50		

Theoretical :

Different textiles, Megascopic and Microscopic study of fibres—cotton, Linen, Wool, Silk, living organisms affective cloth.

A simple study of the costume in different parts of India.

Appropriate dress for different age groups. Distinctive Dress—choice of fabrics—garment construction—for men, women and children.

Principles of dyeing and printing on different textiles; Batik work,

Practical :

Drafting and preparation of garments. Dye stuff. Application of Mordants and dyes. Fixing. Methods of dyeing.

Methods of printing—Direct method, discharge process, Batik work.

The above syllabus may be changed by the Academic Council from time to time on the recommendation of the Board of Under-Graduate Studies or of Special Committee appointed by the Academic Council until such Board is constituted.

Social Science

Paper I	...	...	...	100 marks
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Elements of Sociology

Sociology, the Science of Society—Meaning of Society, Community, Associations, Institutions, Customs, Folk ways and Mores—the Individual and Society—various types of Society: Village Community, City Community, Feudal Community, Nation Community. Society and Environment: Environment and Adaptation—Heredity and Environment—The Physical Environment. The Economic Environment and The Social Environment.

Types of Social Groups: The family, the Community Social Classes—Racial Groups. Classification of Association: Political Associations, Economic

Associations, Cultural Associations. Social change: Meaning of Social Evolution—Biological, Technological and Cultural Factors of Social change.

Paper II ... 100 marks

Social Welfare

Problems of Social Services—India's Five Year Plans and Social Service Programmes :—

(a) Social Welfare—Social research, Training for Social work—Social Legislation, Women's Welfare, Child Welfare—Youth Welfare, Family Welfare Services, Welfare of the physically handicapped, Social Vice, Crime and Correctional Administration.

(b) Welfare of backward classes.

(c) Rehabilitation of Displaced persons.

(d) Health—Water supply and sanitation especially in rural areas—Control of Malaria—Preventive care of the rural population—Health Services of mothers and children—Health education—family planning and population control.

(e) Education—Basic and Primary education—Secondary Education—University Education—Social Education—Women's Education.

(f) Labour Welfare and Social Security.

(g) Housing: Slum Clearance—Town and Country planning—Rural Housing.

India's Five Year Plan.

Paper III ... 100 marks

Nature, problems and methods of Social Psychology, Mental characteristics of men and their importance for the life in Society. The primitive man and his society. Myths, Folklores—their functions. Unorganised and organised groups. Laws of organisation—Mass behaviours.

The Crowd and Audience.

Opinion media of opinion formation.

Rumour. Propaganda—Psychological Warfare in International relations.

Social Control—unorganised agencies—Fashion, Customs, traditions. Organised agencies—education, Religion, Government and Laws.

Social conflicts—Different types, Personality and Personality traits, Development of personality.

The above syllabus may be changed by the Academic Council from time to time on the recommendation of the Board of Undergraduate Studies or of a Special Committee appointed by the Academic Council until such Board is constituted.

Child Care and Training

(Practical demonstrations are to be arranged in different clinics, hospitals and poecial institutions).

Paper I ... 100 marks

Scope of child guidance. Meaning. Methods and aims

Growth and development of normal child.

Early manipulation of intelligence and its development. Different age patterns. Emotional. Development. The process of socialisation.

Child Psychology: Study of the development of children's behaviour from birth to the pro-adolescent period. Physiological and Psychological characteristics of boys and girls of various age groups. Effects of heredity and environment on children. Psychology and learning.

Psychology of Adolescence: Physical, mental and emotional development. The typical changes of this period and other influences on habits, interests and social traits. Adjustment to school, home and community.

Subnormal: Meaning and concept of intelligence and its deviations. Prevention of mental deficiency. Techniques of identification of subnormal children. Responsibility of home, school and community, in training and care of the mentally defective.

~~The displaced, vagrant, orphan and neglected children~~

Child guidance : The role of the Psychologist, the Social workers, the teachers and the parents, Child guidance clinics.

Paper II ... 100 marks

Types of abnormal children. The backward child, the problem child. The sex pervert. The delinquent. Other forms of abnormal behaviours. Factors responsible for such behaviour. Techniques and plans for controlling undesirable behaviour.

Causes of abnormality—Social and environmental factors The personality factor, Psychology of the Unconscious, Complexes, Repressions, Sublimation, General Methods of treatment.

Paper III ... 100 marks.

Nerves and their properties.

Cells tissues and organs. General features of the nervous system.

Neurons and their connections.—Neuro-muscular junction. General idea of the different types of muscles in the body. Neuro-muscular transmission, fatigue.

Central Nervous system; Brain and spinal cord. Reflex activities. Cerebrums. Cerebellum.

Voice and speech.

Sensations—General features and classification.

Consciousness.

Sense organs—Vision, Hearing, Taste and smell and cutaneous sensations.

The above syllabus may be changed by the Academic Council from time to time on the recommendation of the Board of Under-graduate Studies or of a special Committee appointed by the Academic Council until such Board is constituted.

House-Hold Science

Paper I ... 100 marks

The structure of matter.

Air—its constituents—properties of Oxygen and Nitrogen. Theory of combustion. Oxidation and Reduction.

Water—sources and types—Chemistry and treatment of water, quality of water supplies, nature of impurities, purification and treatment of water for drinking purpose and laundering. General and special water required for food industries.

Acids. Bases and Salts, Hydrogen ion concentration. Fatty acids—Soap and its manufacture—types of soap and their uses—requisites of washing and toilet soaps. Liquid soaps. Vanishing creams, snows and cold cream.

Theory of bleaching. Bleaching agents and stain removal. Polishes and other cleansing agents. Disinfectants and Antiseptics.

Fibres : Types of fibres—vegetable and artificial—their physical and chemical characteristics. The chemical constituents of raw cotton, the structure of cotton fibre. Action of heat, light and micro-organisms of cotton. The structure of animal fibre. Mercurisation of cotton.

Preservation of foods : causes of spoilage of fats and protein foods, methods of preservation, methods of canning, preservation by chemical. Production of fruit juices, concentrate, jams, jellies and other preserves.

Clays—types, Kaolin, China, ball and fire-clay—their characteristics. Pottery: Natural body—common earthenware, stoneware and compounded body. Firing of bodies. Glazing.

A comparative study of coal, Coke, Electricity and Gas in cooking manufacture of Coal Gas.

Application of electricity in daily life—Lamp Heaters, Oven, Irons, Refrigerators, Telephone, Telegraph, Radio.

Infection—Sources, Channels of infection, modes of transmission of infection—how to avoid preventable diseases.

Paper II ... 100 marks

A. General Principles of Bio-chemistry of food :—

Morphological, Biochemical and Bio-physical.

B, Digestion and absorption of food.

Biological values of different food materials (Organic and Inorganic)—Metabolism of proteins, carbohydrate and fats and their significance—Water balance—mineral metabolism and their requirements—vitamins and their importance. Nutritive value of common food stuffs.

Principles of diet planning—normal diet for individuals of different conditions of growth, development and work. Feeding the infant and the sick—diet during pregnancy and lactation.

Paper III Practical ... 100 marks

Experiment to determine the volumetric composition of air. Titration of acids and bases. Determination of hardness of water. Preparation of Soap. Determination of Saponification number of fats. Preparation of snows and creams. The use of microscope - Examination of various fibres and fabrics under the microscope. Identification of fibres. Examination of faults. Canning of fruits and vegetables - Evaluation of bleaching powder.

Qualitative re-actions for carbohydrates. Determination of sugars. Acidic and enzymatic hydrolysis of starch. Proteolysis and Lipolysis.

Examination and analysis of cereal, milk and milk products, fruits, fruit juices, vegetables, fats, fish, meat and egg and other miscellaneous foods. Examination of canned and other processed food-stuff.

Preparation of diet for infant, children of different ages and adult diet and evaluation of their nutritional values. Use of Nutritional tables and charts.

Home cookery—cereal, vegetables, meat, fish and egg. Cookery. Beverages.

The above syllabus may be changed by the Academic Council from time to time on the recommendation of the Board of Under-graduate Studies or of a special Committee appointed by the Academic Council until such Board is constituted.

I.Sc. Course

1. House-hold Science—2 Theoretical Papers—150) 200 marks.

1 Practical paper— 50)

Paper 1 ... 75 marks

Paper 2 ... 75 marks

Paper 3 (Practical) 50 marks

2. Social Science—Syllabus same as in I.A. Papers and marks same as in I.A.

3. Child-care and Training—Syllabus same as in I.A. Papers and marks same as in I.A.

4. House-hold Art—Syllabus same as in I.A. Papers and marks as in I.A.

SAME AS I.A. SYLLABUS

B.Sc Course

1. House-hold Science—3 papers ... 300 marks

Paper 1 ... 100 marks

Paper 2 ... 100 marks

Paper 3 (Practical) ... 100 marks

2. Social Science—Syllabus same as in B.A. Papers and marks same as in B.A.

3. Child-care and Training—Syllabus same as in B.A. Papers and marks as in B.A.

4. House-hold Art—Syllabus same as in B.A. Papers and marks as in B.A.

SENATE HOUSE :

D. CHAKRAVARTI,

The 14th May, 1956.

Registrar

CALCUTTA UNIVERSITY

Notification No. C/2539/22 (Aff.)

It is notified for general information that under Section 11 of the First Statutes of the University of Calcutta relating to the 'Affiliation of Colleges' to the University, the Chancellor has been pleased to approve of the proposal of the Syndicate that in extension of the affiliation already granted, the Surendranath College, Calcutta be affiliated in Junior Military Studies to the I.A. and I.Sc. standards with effect from the commencement of the session 1956-57 with permission to present candidates at the examination in the subject from 1953 and not earlier.

Senate House,
The 30th May, 1956.

D. CHAKRAVARTI,
Registrar.

CALCUTTA UNIVERSITY

Notification No. C/2533/104 (Aff.)

It is notified for general information that under Section 11 of the First Statutes of the University of Calcutta relating to the 'Affiliation of Colleges' to the University, the Chancellor has been pleased to approve of the proposal of the Syndicate that in extension of the affiliation already granted, the Siliguri College be affiliated in Biology to the I.Sc. standard with effect from the commencement of the session 1956-57, with permission to present candidates at the examination in the subject from 1958 and not earlier.

Senate House,
The 30th May, 1956.

D. CHAKRAVARTI,
Registrar.

CALCUTTA UNIVERSITY

Notification No. C/2595/8 (Aff.)

It is notified for general information that under Section 11 of the First Statutes of the University of Calcutta relating to the 'Affiliation of Colleges' to the University, the Chancellor has been pleased to approve of the proposal of the Syndicate that in extension of the affiliation already granted the Gokhale Memorial Girls' College, Calcutta, be affiliated in Alternative English to the I.Sc. standard and Alternative Bengali and additional paper in Alternative Bengali to the I.A. standard with effect from the session 1954-55 with permission to present candidates at these examinations in these subjects from 1956 and not earlier.

The Chancellor has also been pleased to approve of the proposal of the Syndicate that the College be affiliated in Alternative Hindi and Additional Paper in Alternative Hindi to the I.A. standard with effect from the commencement of the session 1956-57 with permission to present candidates at the examination in these subjects from 1958 and not earlier.

Senate House,
The 30th May, 1956

D. CHAKRAVARTI,
Registrar.

CALCUTTA UNIVERSITY

Notification No. CSR/20/56

In modification of this Office Notification No. CSR/3/56, dated the 30th January 1956, it is notified for general information that the revised syllabus in Mathematics for the B.A. and B.Sc. classes will be effective from the examination of 1960 and not 1958 as previously announced.

The above decision was made by the Academic Council at their meeting held on 5th May 1956.

Senate House,
The 14th May, 1956

D. CHAKRAVARTI,
Registrar.

CALCUTTA UNIVERSITY

Notification No. CSR/15/56

It is notified for general information that the Senate on 22nd February 1956, accepted the following changes in Chapter XXXVIII of the Regulations relating to the degree of Doctor of Science as adopted by the Academic Council on 2nd December, 1955, on the recommendation of the Faculty of Agriculture.

The words 'or Master of Science in Agriculture' be inserted after the words 'Master of Science' in—

(i) line 1 under rule 1 : (ii) in line 3 under rule 7 : (iii) in line 3 under rule 8 and (iv) in line 2 under rule 9.

Senate House,
The 6th April, 1956

D. CHAKRAVARTI,
Registrar.

CALCUTTA UNIVERSITY

Notification No. CSR/18/56

It is notified for general information that the Senate on 22nd February, 1956 accepted the following changes in Chapter XXXVII of the Regulations relating to the M.Sc. examination as adopted by the Academic Council on 2nd December, 1955 on the recommendation of the Faculty of Science.

"That the distribution of papers for the Psychology "A" Course (p. 314) of the Regulations, 1955 edition be revised as follows :—

Theoretical :—

Paper I
Paper II
Paper III
Paper IV
Paper V

General Psychology
Genetics and Physiological Psychology
Child and Educational Psychology
Abnormal and Social Psychology
One of the following :—

- (i) Advanced Abnormal Psychology
- (ii) Advanced Social Psychology
- (iii) Indian Psychology
- (iv) Psychology of Aesthetics.

The above list may be added to or modified from time to time by the Board of Post-Graduate Studies in Psychology.

Practical :—

Three Papers (four days)
Papers VI, VII, VIII

Senate House,
The 6th April, 1956

D. CHAKRAVARTI,
Registrar.

CALCUTTA UNIVERSITY

Notification No. CSR/19/56

It is notified for general information that the Senate on 22nd February, 1956, accepted the following changes in Chapter XXXVII B of the Regulations relating to the Certificate Course in Applied Psychology as adopted by the Academic Council on 2nd February, 1956 :—

"That Rule 2 of Chapter XXXVII B of the Regulations (page 335 of 1955 edition) be replaced by the following :—

'2. A candidate who has passed one of the undermentioned examinations or has otherwise satisfied the Council of the University College of Science that he possesses special qualifications for prosecuting the course, will be eligible for admission to the examination, provided that he has prosecuted a regular course of study in Applied Psychology for one academic session in the Post-Graduate Department of the University.

Master of Arts or Science in Psychology or in any one of the allied subjects.

Bachelor of Arts or Science with Psychology or in any one of the allied subjects.

Bachelor of Teaching

Bachelor of Medicine

Allied subjects mentioned above are these :—

Physiology, Anthropology, Philosophy, Physics, Mathematics and Statistics".

Senate House,
The 6th April, 1956

D. CHAKRAVARTI,
Registrar.

CALCUTTA UNIVERSITY

Notification No. C/2562/32 (Aff.)

It is hereby notified for general information that under Section 11 of the First Statutes of the University of Calcutta relating to the "Affiliation of Colleges" to the University, the Chancellor has been pleased to approve of the proposal of the Syndicate that in extension of the affiliation already granted, the St. Xavier's College, Calcutta, be affiliated in Geography to the I.A. and I.Sc. standards with effect from the commencement of the Session 1956-57 with permission to present candidates at the examination in the subject from 1958 and not earlier.

Senate House,
The 26th May, 1956

D. CHAKRAVARTI,
Registrar.

CALCUTTA UNIVERSITY

Notification No. C/2556/106 (Aff.)

It is hereby notified for general information that under Section 11 of the First Statutes of the University of Calcutta relating to the "Affiliation of Colleges" to the University, the Chancellor has been pleased to approve of the proposal of the Syndicate that in extension of the affiliation already granted the Kharagpur College, Midnapore, be affiliated in English, Bengali Vernacular, History, Economics and Philosophy to the B.A. (Pass) standard with effect from the commencement of the session 1956-57 with permission to present candidates at the examination in the subjects from 1958 and not earlier.

Senate House,
The 23rd May, 1956

D. CHAKRAVARTI,
Registrar.

CALCUTTA UNIVERSITY

Notification No. C/2575/57 (Aff.)

It is hereby notified for general information that under Section 11 of the First Statutes of the University of Calcutta relating to the "Affiliation of Colleges" to the University, the Chancellor has been pleased to approve of the proposal of the Syndicate that in extension of the affiliation already granted the Muralidhar Girls' College, Calcutta, be affiliated in Mathematics and Commercial Arithmetic and Book-keeping to the I.A. standard with effect from the commencement of the session 1956-57 with permission to present candidates at the examination in the subjects from 1958 and not earlier.

Senate House
The 28th May, 1956

D. CHAKRAVARTI,
Registrar.



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[No. 3

BENGAL (1750-1800)

HEMENDRAPRASAD GHOSE

CHAPTER V

DESTRUCTION OF INDUSTRIES

Of the important things that had happened in Bengal by the time the eighteenth century came to a close the destruction of her industries was one of the most important because of its disastrous consequences. Till the battle of Plassey (1757 A.D.) gave the English the power to dictate policy in the administration, their commercial policy had been to purchase goods of Indian manufacture at cheap prices and sell them in Europe at a profit. Even in this process the East India Company had at times met with opposition. Special mention must be made of the well-known case of Indian textile goods. Says Birdwood :—

“ When the old East India Company began to import Indian silks with other Indian stuffs into England, a great deal of exasperation was felt by the home manufacturers of cotton, woollen, and silken goods; and at length the Legislature of this country (i.e., England) was constrained to pass the scandalous law of 1700 ”.¹

By this law it was enacted “ that from and after the 29th day of September, 1701, all wrought silks, Bengals and stuffs mixed with silk or herba, of the manufacture of China, Persia, or the East Indies, and all calicoes, painted, dyed, printed or stained there, which are or shall be imported into this Kingdom, shall not be worn or otherwise used in

¹ Birdwood, *Industrial Arts of India*.

Great Britain; and all goods imported after that day, shall be warehoused or exported again ”.

Cotton manufacture obtained a footing in Europe long after the industry had become prosperous in India. “ At a date before history the art was carried from India to Assyria and Egypt; but it was not until the thirteenth century that the cotton plant was introduced into Southern Europe where its wool was at first used to make paper. The manufacture of it into cloth in imitation of the fabrics of Egypt and India was first attempted by the Italian States in the thirteenth century; from which it was carried into the Low Countries, and thence passed over to England in the seventeenth century. In 1641 ‘ Manchester cottons ’ made up in imitation of Indian cottons, were still made of wool. But in vain did Manchester attempt to compete on fair free-trade principle, with the printed calicoes of India; and gradually Indian chintzes became so generally worn in England, to the detriment of the woollen and flaxen manufacturers of the country, as to excite popular feeling against them.”²

The Government passed the law in 1721 prohibiting the wear of all printed calicoes whatever. It was modified in 1736 so far that calicoes were allowed to be worn “ provided the warp thereof was entirely of linen yarn. The law of 1700—passed previously—has already been mentioned. These laws were particularly designed for the protection of Spitalfields silk manufacture, but proved of little or no avail against the prodigious importation and tempting cheapness of Indian piece-goods at that time ”.³ And the British Government enforced a policy of sheer selfishness. The impartial verdict of H. H. Wilson is emphatic :—

“ It is also a melancholy instance of the wrong done to India by the country on which she has become dependent. It was stated in evidence (in 1813) that the cotton and silk goods of India up to the period could be sold for a profit in the British market at a price from 50 to 60 per cent. lower than those fabricated in England. It consequently became necessary to protect the latter by duties of 70 and 80 per cent. on their value or by positive prohibition. Had this not been the case, had not such prohibitory duties and decrees existed, the mills of Paisley and Manchester would have been stopped at their outset and could not surely have been again set in motion, even by the power of steam. They were created by the sacrifice of the Indian manufacture. Had India been independent, she would have retaliated,

² Birdwood, *Industrial Arts of India*.

³ *Ibid.*

would have imposed prohibitive duties upon British goods, and would thus have preserved her own productive industry from annihilation. This act of self-defence was not permitted her; she was at the mercy of the stranger. British goods were forced upon her without paying any duty, and the foreign manufacturer employed the arm of political injustice to keep down and ultimately strangle a competitor with whom he could not have contended on equal terms.”⁴

And the industries in England for whose prosperity the Indian industries were destroyed owed their existence and prosperity to money from Bengal. Wrote Dean W. R. Inge in his essay of the Future of the English race :—

“The industrial revolution came upon us; it changed the whole face of the country and the character of the people. . . . The first impetus was given by the plunder of Bengal, which, after the victories of Clive, flowed into the country in a broad stream for about 30 years. This ill-gotten wealth played the same part in stimulating English industries as the ‘five milliards’ extracted from France did for Germany after 1870.”⁵

The plunder of Bengal by Clive thus provided the capital for English industries which were fostered by iniquity as far as Bengal and India were concerned. The selfish policy was never abandoned by England. When the invention of the powerloom in Europe completed the destruction of the handloom industry in Bengal and the first cotton-mill was established in Bengal in 1818 (at Fort Gloster near Calcutta) England once again acted towards India with injustice.

The plunder of Bengal continued. History blushes to record the plunder of Clive and his successors. “Brown, whom Clive employed to lay out his pleasure grounds, was amazed to see in the house of his noble employer a chest which had once been filled with gold from the treasury of Moorshedabad, and could not understand how the conscience of the criminal could suffer him to sleep with such an object so near to his bedchamber.”⁶ Such was his greed that when he came out as Governor of Bengal for the second time he could not resist the temptation of cheating Emperor Shah Alam of a lakh of rupees on the plea that the amount would be paid to the King of England by the Emperor’s Ambassador to secure permission to transfer British soldiers to his service. The sordid story had been told by the ambassador-elect Mirza I’tesamuddin the first educated Bengali who went to England (1765 A.D.).⁷ No wonder Clive’s attempt to “purify the Company’s

⁴ Mill, *History of India* (Wilson’s continuation);

⁵ Inge, *Outspoken Essays*.

⁶ Macaulay, *Essays*.

⁷ *History of the Family of Mirza I’tesamuddin*.

service"—by prohibiting illicit gains did not meet with success because of the stiff resistance of the Civil Servants culminating in an actual mutiny of two hundred military officers.

Clive's successor in office—Warren Hastings—was himself proficient in the profession of plunderer and so a good judge of plunderers. He wrote thus :—

“ The Englishman is quite a different character in India; the name of an Englishman is both his protection and a sanction for offences which he would not dare to commit at home.”

“ There is one great consequence”, said Lord Teignmouth, “ which I should think likely to result from a general influx of Europeans into the interior of the country and their intercourse with the natives, that without elevating the character of the natives, it would have a tendency to depreciate their estimate of the general European character.”^s

A little later Sir Thomas Munro remarked in England :—“ I find no difference in traders, whether their habits are quiet or not when they quit this country; they are very seldom quiet when they find themselves among an unresisting people over whom they can exercise their authority, for every trader going into India is considered as some person connected with Government. I have heard that within these two or three years, I think in Bengal in 1810, private traders, indigo merchants, have put inhabitants of the country in the stocks, have assembled their followers and given battle to each other and that many have been wounded.”⁹

The execrable behaviour of the English in India was resented by some Englishmen in England. Campbell's *The Pleasures of Hope* was written during the closing years of the eighteenth century. In it the poet referred to the English in India and wrote thus :—

“ Did peace descend, to triumph and to save,
When freeborn Britons cross'd the Indian wave?
Ah, no! to more than Rome's ambition true,
The Nurse of Freedom gave it not to you!
She the bold route of Europe's guilt began,
And, in the march of nations, led the van.

“ Rich in the gems of India's gaudy zone,
And plunder piled from Kingdoms not their own,
Degenerate trade! thy minions could despise
The heart-born anguish of a thousand cries;

^s *Minutes of Evidence* (1813).

⁹ Monroe.

"Could lock, with impious hands, their teeming store,
 While famish'd nations died along the shore;
 "Could mock the groan of fellow-men, and bear
 The curse of Kingdoms peopled with despair;
 Could stamp disgrace on man's polluted name,
 And barter, with their gold, eternal shame." ¹⁰

But though their conduct made poets and priests in their own country hang down their heads in shame, it did not dissuade them from the sinful course of action they had been following. True "the great famine in Bengal in 1770 aroused the attention of Englishmen to the defects of the East India Company's administration . . . and was followed by the Regulating Act in 1774, by Pitt's India Act in 1784," ¹¹ but India was not freed of the iniquities of Englishmen. The tales of traffic are disfigured by incidents which throw sombre shadows over the scenes they depict. They culminated in the most august of proceedings which the British Parliament has ever witnessed—the impeachment of Warren Hastings. The proceedings dragged themselves out for seven years (1788-95). The cost of the defence ruined Hastings and left him dependent upon the generosity of the Court of Directors of the East India Company. Though Hastings was declared not-guilty in this trial Burke vindicated the cause of right and justice. As Morley has put it—"Burke is entitled to our lasting reverence as the first apostle and great upholder of integrity, mercy, and honour in the relation between his countrymen and their humble dependents." ¹²

What little the plunders left for the people was taken away by the destruction of the industries in Bengal which had been a never-failing source of income for the people making them able in times of temporary distress caused by failure of a crop or the effects of a flood or a cyclone.

As long as the British in India were mere traders, like members of some other European nations, their objective was, as we have said before, to purchase Indian products at a cheap rate and sell them in Europe at a profit. As they had no political power their trade had one redeeming feature. They had their investments—in cash and commodities. The price of the commodities sent was almost negligible. Even Munro who did not leave India till 1807, with his vast experience of the country and its people, could not anticipate the change that was in the offing and any considerable increase in the demand for British manufactures by Indians, unless by very slow steps and at a very distant period. He wrote :—

¹⁰ Campbell, *Pleasures of Hope*.

¹¹ Romesh C. Dutt, *England and India*.

“No nation will take from another what it can furnish cheaper and better itself. In India almost every article which the inhabitants require is made cheaper and better than in Europe. Among these are all cotton and silk manufactures, leather, paper, domestic utensils of brass and iron, and implements of agriculture. Their coarse woollens, though bad, will always keep their ground from their superior cheapness, their finer camblets are warmer and more lasting than ours.”¹⁹

Glassware, he said, was in little request, except with a very few principal natives, and among them is confined to mirrors, and lamps; and it is only such natives as are much connected with the Europeans who purchase these articles. They keep them, not to gratify their own taste, but to display to their European friends, when they receive their occasional visits; and at times they are put out of the way as useless incumbrances.

On the other hand in regard to imports from India to England, Munro held that India was capable of supplying to any extent most of the articles at that time imported.

It may not be out of place to state what Munro told of the simple habit of the Indians.—“What the European trader eats and drinks in one month, would make a very decent mercantile profit for the Hindu for twelve.”

The investments of the Europeans tended to increase production and keep the manufacturers busy.

The European traders did not confine their operations to Dacca, Murshidabad and Calcutta only in Bengal, but penetrated into the mofussil centres of manufacture.

In the year 1784, when the British had been strengthening their political power, the Supreme Council at Calcutta instituted an enquiry into the nature and circumstances of the trade of the French East India Company in Bengal (*i.e.*, Bengal, Bihar, and Orissa). The letters received from different places go to show that the French also carried on trade in the interior. . .

The Chief of Patna wrote to say that the French East India Company and Nation had, since 1763 carried on trade in Saltpetre and coarse Callico Cloths. Their Saltpetre they had regularly received from the Agents of the English East India Company their portion of it being annually eighteen thousand maunds of 76 Sicca weight at a price of Ely Rupees 3-8-0 per maund. Their trade in Callico was practically limited to “the Districts of Shaw Abad between the rivers

of Soane and Carumnassa where so many weavers reside as make about six thousand pieces Gurrah Cloths in a year." ¹⁴

The Chief of Cossimbazar wrote thus of the French and Dutch factories there—"The trade of the former has been so very small for many years past that if they ever possessed any exclusive privileges it is no longer known to the people here; the latter who have kept up an investment in this place, who have a large Factory with large grounds annexed, have no particular privileges without the limits of their factory—they have their own goldar's or brokers to whom they make advances, and these people are responsible to whom, and should any manufacturer be indebted to them, beyond their factory they are obliged to apply by their Vakeels to the established country Courts of Justice; they are indeed no more than any other merchants of the country, excepting within the limits of their Factory where they exercise every authority." ¹⁵

The report of the Chief of Luckipore was as follows—"Four gentlemen of the French Nation are named to me, as being the first residents at Jugdea, . . . they were not there together but succeeded each other as Residents. . . . The year in which the Factory was established cannot be ascertained, but it is known that one Nursing of Sooner Gong was Head Duloll of these Aurungs and that a dependant of his, one Rotton Monick, acted in that capacity both the French and English Factories. . . . " ¹⁶

The report of the Resident of Maulda was that—"In 1765 a man named Sevicram having made a contract at Chandernagore with Mr. Chevalier, came to his own residence and purchased goods for him in the same manner as other purchased. This business lasted about a year. In the year 1767 a person named Conny Sircar came to Malda to purchase cloths and trade in other articles on the part of Mr. Chevalier, not as a servant but as a factor or contractor receiving a commission on the transactions. He hoisted the French flag over the house in which he carried on his business, as the Gomastahs of English gentlemen then used to hoist the English flag. He provided goods by contract with the merchants and dealers of Malda, and set up Factories in the Moffusil, one at Colligang and one at Mahanandpore, where he engaged a few looms not belonging to the English Company. . . . " ¹⁷

The Resident at Rungpore wrote to say that—"Mr. Chevalier was deputed in 1754 or 1755 from Chandernagore to carry on a trade

¹⁴ *Bengal Past and Present*—April-June, 1909.

¹⁵ *Ibid.*

¹⁶ *Ibid.*

¹⁷ *Ibid.*

for the French East India Company with Assam. He established a trade and settled at Gualparah. On the capture of Chandernagore by the English the trade on the part of the French Company with Assam was discontinued. . . . " 18

The Resident at Sonnamooky wrote that—"Prior to the year 1768 they (the French) provided only through the Gomastahs, in that year Monor Le Seigneur came into Beerbhoom and obtained a few Beghas of ground from a Ghussein, who resides at Sapour, named Anund Chand. On this spot he built a house, and termed it a factory; where he hoisted the French colours, established guards, and made advances for Gurrahs through Dollolls to the amount of Rs. 1,25,000 annually. . . . " 19

The Superintendent of Hurriaul wrote that the French went there in 1766 and "it is believed that the extent of their purchases was from 30 to 40,000 rupees each year." 20

The Resident at Bauleah wrote that the French East India Company never possessed any regular factory or establishment in the division but rented a small house about 1775 near Rampore "where they provided a quantity of the country wound silk under the inspection and management of a Native Gomastah. . . . " 21

At Commercolly the French had no establishment. But the Resident of Keerpoy wrote—"Since the peace of 1763 the French had a Factory in the Town of Keerpoy, where their Resident lives, and provided goods annually from the year 1766 to the year 1774 when he quitted the Factory, from which time to the breaking out of the last war their investment was provided by Gomastahs and other Agents, they had also a Kotty the year 1767. In 1768 Mr. Chevalier's Gomastahs imported in cash and merchandise to the amount of near a lack of rupees; with this fund they conducted their business till the end of 1770. In 1771 they began to collect their outstanding balances, and in 1773 they removed their effects and left the Aurung. . . . " 22

At Radnagore a French gentleman is said to have resided on the part of the French East India Company "to provide an Investment of Raw Silk and Cotton piece goods, but chiefly piece goods, and those of the finer assortments manufactured in this part of the country." 23

At Santipore the Dutch had constantly made dadney contracts deliverable at Chinsurah while "during the year 1775-76 and 77

18 *Ibid.*

19 *Ibid.*

20 *Ibid.*

21 *Ibid.*

22 *Ibid.*

23 *Ibid.*

Mr. Billow a French gentleman hired a small Buñgalow" and "purchased a few cloths on his own account." ²⁴

Thus European traders went to various places in the interior where their advances gave filip to local manufacture. As long as the British were not rulers of the country they could not oppress the manufacturers at will. But with their assuming political power their attitude changed; and they began to pay the manufacturers less than fair price for the goods purchased. And their attitude underwent complete change when the puppet Nawabs at Murshidabad were shorn of all power and relegated to the background with pensions depending on the mercy of the English, and Britain began to manufacture goods for sale in India. This change was thus described by Bholanath Chunder :—

"It (the policy of the British Government in India) may be summarised as a policy wholly and purely of interest, and not of duty. At first prohibitive, next aggressive, then suppressive, it has at last become repressive—setting bounds to native ambition for anything approaching commercial rivalry. In name, it advocates free trade. In fact, it upholds a gigantic monopoly. The whole history of that policy—of the gradual steps taken to elaborate its frame-work, and of the changes introduced from time to time to mature, harden, and set it in the mould in which it exists and works at the present day—cannot but leave on the mind the impression that selfishness combined with insincerity, is the essential of all commercial legislation by England with reference to India, and that the break-up and repression of the Indian industry being the great object of that legislation, it has been the most efficient cause of the decay and ruin of Indian manufactures—which are now like a star whose light survives, though space no longer contains its substance." ²⁵

How rapid was the evil effect of the policy of the British would be apparent from the following remarks about the fate of Dacca made by H. J. S. Cotton :—

"It was during the time of the Mogul Government that this city reached the zenith of its prosperity. When it passed under British administration the population was estimated at two hundred thousand souls. In 1787 the exports of Dacca muslin to England amounted to £300,000; in 1877 they had ceased altogether. The arts of spinning and weaving, which for ages, afforded employment to a numerous and industrious population, have now become extinct. Families which were formerly in a state of affluence have been driven to desert the town and

²⁴ *Ibid.*

²⁵ *Mookerjee's Magazine*—1873.

betake themselves to the villages for a livelihood. Not a year passes in which the local officers do not bring to the notice of Government that the manufacturing classes are becoming impoverished.”²⁶

The following figures showing the value of the cotton goods alone sent out from England to parts east of the Cape of Good Hope, mainly to India, from 1793 to 1800 would go to show the growing prosperity of the manufacture of cotton goods in England at the cost of the Indian industry :—

Year ending 5th January				
1794	...	...	£	156
1795	...	...	£	717
1796	...	...	£	112
1797	...	...	£	2,501
1798	...	...	£	4,436
1799	...	...	£	7,317
1800	...	...	£	19,575

The value of these imports increased rapidly till in 1813—the year when the Charter of the East India Company was renewed—it had risen to £1,08,824.

The people engaged in the manufacture of cotton goods became unemployed and agriculture soon grew to be the universal industry of India..

Reference has already been made to the “scandalous law” of 1660. The intention of the law was to establish prosperous industries in England on the ashes of the prosperous industries in India.

This intention was also apparent in the policy adopted towards silken manufacturers of fabrics. The industry had been prosperous even before the days of the East India Company. “It is on record that in 1577 Shaik Bhik, of Maldah, sent three ships of Maldahi cloth to Russia by the Persia Gulf.”²⁷ The British weavers had begun to be jealous of Bengal weavers whose silk fabrics were imported into England, and a deliberate endeavour was now made to use the political power obtained by the Company to discourage the manufacturers of Bengal in order to promote the manufacturers of England. In their general letter to Bengal, dated the 17th March, 1769, the Company desired that the manufacture of raw silk should be encouraged in Bengal, and that of manufactured silk fabrics should be discouraged. And they also recommended that the silk-winders should be forced to work in the Company’s factories, and prohibited from working in their own homes.”

²⁶ *India's Economic Problem in 'East and West,'* 1903.

²⁷ Birdwood *Industrial Arts of India.*

In the Ninth Report of the House of Commons Select Committee on Administration of Justice in India, 1783, we read the following remarks :—

“ The letter contains a perfect plan of policy, both of compulsion and encouragement, which must in a considerable degree operate destructively to the manufactures of Bengal. Its effects must be (so far as it could operate without being eluded) to change the whole face of that industrial country, in order to render it a field of the produce of crude materials subservient to the manufactures of Great Britain.”

The importance of the silk industry in Bengal can be understood when we find that the East India Company founded a factory at Cossimbazar some five or six miles south of Moorshidabad in 1658. In 1681 out of £2,30,000 sent out by the Company as “ investment ” for Bengal £1,40,000 was assigned to this silk agency at Cossimbazar. In 1776 Bengal silk is said to have driven all competitors except Italian and China silks out of the market. Lord Valentia visited Cossimbazar in 1802 and has left a detailed description of the importance of this industry in Bengal. He has said that though Cossimbazar was the greatest station for silk in possession of the East India Company and nominally took the lead, there were other centres also such as Maldah, Bouleah, Commercolly, Radhanagore and Rungpore. In Cossimbazar (Junjipur), said Valentia “ the people looked healthy, and I understand it is by no means a deleterious employment, and certainly in many respects is advantageous, as very young children can be employed, and the eight crops of the common cocoon enable them to earn sufficient to maintain them the whole year.” ²⁸

The points in this statement which should be noted are :—

- (1) The silk worms were bred by women and children;
- (2) Even young children could be employed in the industry;
- (3) The employment was not deleterious;
- (4) The cocoon rearing industry enabled the people to earn sufficient to maintain them during the whole year.

Thus this industry was a great economic asset to the people and provided remunerative occupation even for women and children.

The deterioration and ultimate destruction of this industry was a calamity for the people of Bengal.

What the destruction of the major industry of cotton weaving meant to the people would be evident from the report of Dr. Buchanan who conducted a survey of some districts of Bengal under the direction of the Supreme Government of Bengal, under orders of the Court of

²⁸ George, Viscount Valentia, *Voyages and Travels*.

Directors of the East India Company, dated the 7th January, 1807. In Dr. Buchanan's survey of Dinajpur district we find that cotton spinning occupied the leisure hours of "all the women of higher rank, and of the greater part of the farmers' wives." Rs. 3 per year was the annual income each woman made by spinning in her afternoon. The total value of raw cotton bought by the spinners in the District was Rs. 2,50,000 the value of the yarn made was Rs. 11,65,000—the profit of the women was, therefore, Rs. 9,15,000.²⁹

The allied industry of dyeing kept many hands engaged. Needless to say that with the decay of the cotton and silk weaving industries it also languished and ultimately disappeared.

Like Bombay and Madras (Cochin) Bengal had developed a great shipbuilding industry. In 1800 the Governor General (Lord Wellesley) wrote to his masters in England:—

"The port of Calcutta contains about 10,000 tons of shipping built in India, of a description calculated for the conveyance of cargoes to England. . . . From the quantity of private tonnage now at command in the port of Calcutta, from the state of perfection which the art of ship-building has already attained in Bengal (promising a still more rapid progress and supported by abundant and increasing supplies of timber), it is certain that the port will always be able to furnish tonnage, to whatever extent may be required, for conveying to the port of London the trade of the private British merchants of Bengal."

"A proposal was made in 1758, for having a dock in Bengal for the reception of His Majesty's ships 'in case the squadron should winter here'. This led to the formation of the Kidderpore Docks at a place called Surnam's Garden, so called from William Surnam, who went in 1714 on embassy to the Great Mogul.

"To Colonel Henry Watson who was Chief Engineer to Government, unquestionably belongs the honour of having established the first dock yards in Bengal. His penetration led him to perceive the advantageous position of the Bay of Bengal in reference to the countries lying to the east and west of it. He felt that if the English marine was placed on an efficient footing, we must remain masters of the eastern seas. He, therefore, obtained a grant of land from Government at Kidderpore, for the establishment of wet and dry docks, and of a marine yard in which every facility should be created for building, repair and equipping vessels of war and merchants. His works were commenced in 1780. He spent ten lakhs of rupees on these docks. Near the docks he created a windmill; but as it commanded a view of

²⁹ Martin, *Eastern India*.

a native's zenannah the native went to law and obtained a decree that the windmill should be pulled down.

"In the year 1781 Colonel Watson launched the *Nonsuch* frigate of 36 guns, which was constructed under his own directions by native workmen, and proved remarkable for her speed. He devoted his time and his fortune to this national undertaking for eight years, and in 1788 launched another frigate, the *Surprise* of 32 guns; but his resources were by this time exhausted; and having sunk ten lakhs of rupees in his dockyard he was obliged to relinquish it. The docks afterwards were purchased by James Kyd, an East Indian gentleman, who not only endeavoured to stir up his own section of the community to seek an honourable independence by their own exertions, instead of wasting their lives in the subordinate position of clerks, but himself set them the example of independent enterprise in the large docking establishment which he conducted at Kidderpore.

"Before the year 1780 Bengal was almost entirely dependant on Surat, Bombay, Damann and Pegu for shipping.

"In 1795 the Indian Government issued the following:—

'The Governor General in Council adverting to the importance of ship-building to the settlement, and with a view to encourage the same has thought proper to abolish from this date; the customs heretofore collected on timber, imported, as well by sea, as from the Upper Provinces. (SD.) C. Shakespeare, Sub-Secretary to Government, Fort William, November 30, 1795.'

"Between 1781 and 1800, thirty-five vessels, averaging 17,620 tons were built in Calcutta, and from 1781 to 1820 the number built was two hundred and thirty-seven." ³⁰

But the progress and prosperity of the ship-building industry in India could not be tolerated by the British. Taylor has said:—

"The arrival in the port of London of Indian produce in Indian-built ships created a sensation among the monopolists which could not have been exceeded if a hostile fleet had appeared in the Thames. The ship-builders of the port of London took the lead in raising the cry of alarm: they declared that their business was on the point of ruin, and that the families of all the shipwrights in England were certain to be reduced to starvation."

This unjust cry prevailed, for blood is thicker than water. The Court of Directors of the East India Company prohibited the employment of Indian ships in the trade between England and India. Lord Wellesley endeavoured to obtain the admission of Indian ships and

³⁰ *The Good Old Days of Hon'ble John Co., Vol. II.*

their cargoes into the ports of England on terms approaching in some degree to reciprocity but his efforts on this point caused great opposition at home—embarrassed considerably his government, and was the cause of the treatment he received in England in 1807.

The Court of Directors stuck to their decision and advanced, among others, the following curious argument:—

“The native sailors of India are . . . on their arrival here, led into scenes which soon divest them of the respect and awe they had entertained in India for the European character. . . . The contemptuous reports which they disseminate on their return cannot fail to have a very unfavourable influence upon the minds of our Asiatic subjects, whose reverence for our character, which has hitherto contributed to maintain our supremacy in the East, will be gradually changed . . . and the effects of it may prove detrimental.”

This was the “political view” which was trotted out as an argument prohibiting the entry of Indian ships manned by Indians into the port of London. It is a clear case of conscience making cowards of people.

It is certainly “sad to trace” the destruction of the major industries of Bengal by the British but not “long to tell”.

The money squeezed from Bengal made for the prosperity of British industries. “The introduction of expensive implements, or processes, involves a large outlay; it is not worthwhile for any man, however energetic, to make the attempt, unless he has a considerable command of capital and has access to large markets.” Bengal supplied the capital for British industries and their products were forced on the Indian market.

“Before Plassey was fought and won, and before the stream of treasure began to flow to England the industries of our country (England) were at a very low ebb. Lancashire spinning and weaving were on a par with the corresponding industry in India so far as machinery was concerned; but the skill which had made Indian cottons a marvel of manufacture was wholly wanting in any of the Western nations.”

Bengal industries which had been developed slowly but surely had to be killed to improve British industries and the unscrupulous British did not hesitate to destroy them.

The economic oracles of England impressed it upon the people of Bengal that their distress caused by the destructions of their industries was in strict accordance with economic laws. They told the Indian that he had a mission to supply Europe with raw materials as they had told the American farmer that he had a mission to supply Europe with

wheat and flour because he could do it cheapest. The Americans declined to listen to the siren song and getting their first start in international trade as food-producers they built factories and iron works with the money secured by their wheat and beef and cotton exports. But India was at the mercy of the foreigner who destroyed her flourishing industries and reduced her people from prosperity to penury to serve his selfish end.

Bengal which had never been a purely agricultural province soon degenerated into one depending solely on the insecure industry of agriculture. And in 1933 an English Governor of Bengal said—"The Province is not poor in natural resources or in manpower; but there must, I feel, be some maladjustment *somewhere* in a system which keeps a vast agricultural population, groaning under a load of debt, eking out a narrow and penurious existence and yet, in most districts, lacking useful occupation for nearly nine months out of the twelve."

Had the speaker taken the trouble to study the history of Bengal under his countrymen he could easily have seen that the maladjustment which surprised him was the creation of his unscrupulous countrymen—the inevitable result of their policy regarding the industries of India.

The so-called battle of Plassey was fought in 1757 and won by the British through the forgery of Clive and the treachery of Mir Jafar. And by the end of the century the British had succeeded in reducing industrial Bengal into agricultural Bengal—replacing prosperity by poverty in the land.

³¹ Sir John Anderson.

NYĀYA-MĀÑJARĪ

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JANAKIVALLABHA BHATTACHARYA M.A., PH.D.—ŚĀṆKHYATIRTHA

THE DEFINITION OF MOTIF

It has been objected that an injunction is hard to grasp because springs of action have not been determined. An answer to this objection is as follows. The result of an action cannot be a motive since the result of an action is open to a puzzling dilemma *viz.* it is either an pre-existent object or a non-existent one. If a result already exists then nobody tries to bring it about. Again, if a result is non-existent then it is unreal like the horns of a hare. As such it cannot logically act as a motive since a motive of this type has never been experienced.

If you say that a result which is desired is a motive then it may be as well said that the very desire constitutes the motive of an action but not the result. Our desire for obtaining a result may be excessive. But if the means to an end is not determined then nobody can reasonably undertake an action. A man who desires heaven does not simply make a show of an action in order to attract a large number of audience. The exact means to the real good should be his springs of action. The people also behave in this fashion when they transact worldly matters. They learn from the medical treatises written by the great physicians that the myrobalan fruit remedies a few diseases. When they fall a victim to these diseases they use it. Considering that food appeases hunger a hungry person sets to take food. Therefore what is conducive to the well-being of a person is his motif.

The above hypothesis is not sound. Does a means to the well-being stimulate one's activity, being itself known or unknown? A means which is not known as such does not stir our activity. If a person does not learn the medicinal properties of a myrobalan fruit from any source whatsoever then he, being ill, cannot use it as a remedy. Therefore source of the knowledge of a means is really a mover. How do we know that the means in question leads to the end in question? When the means and the end are tangible we know them in their true colour by the joint method of agreement and

difference. When the end is invisible the means to this end is learnt only from the verbal authority. Therefore, an authoritative word excites our inclination for a work. Such a word by itself (i.e. if its sense is not properly understood) does not set up our activity. If it had done so then it would have behaved like the wind etc. If a word, being itself not properly grasped, makes us move as the wind, or a demon or a bad king does then a man should undertake a work whenever he hears a word but does not understand its sense. Such a conjecture is absurd. For this reason, a word impels to action when its sense is thoroughly grasped. Inflections, indicative of subjunctive mood, cannot impel a person to undertake a work simply revealing the motif of an action. A word is distinct from other sense-organs viz. the eyes etc. since it communicates its meaning. In spite of this distinction it is the instrumental cause of the knowledge of its meaning which it conveys. An instrumental cause is such as does something. A cause cannot produce its effect if it does not operate. It must be operative. The inflexion, indicative of the subjunctive mood, does not merely effectuate consciousness but also gives an impulse to work. We know it from our experience. When one makes out the sense of *liṃ* (an inflexion, indicative of the subjunctive mood) he is seen to undertake a work. The operation of *liṃ* is responsible for this movement. The operation of *liṃ* is called *Sabda-bhāvanā*. It denotes an injunction i.e. a command. It gives an impulse to work.

THE TWO TYPES OF BHĀVANĀ

Sentences, used in the subjunctive mood, communicate two kinds of *bhāvanās* viz. *Sabda-bhāvanā* and *Arthabhāvanā*.

Of these two *Arthabhāvanā* is the activity of the agent which causes something to come into being but is not denoted by the uninflected verb i.e. by the basic root. Something comes into being. The activity of an agent is directed towards it. It belongs to an agent. When heaven, the nominative case of the verb 'to come into being', becomes the objective case of the verb, belonging to the sacrificer, the process, denoted by the second verb, is called "*Arthabhāvanā*". It has been already explained.

The process or operation which belongs to a word or to its constituent element and induces a person to undertake a sacrifice is called "*Sabda-bhāvanā*". The suffix or inflexion, indicative of the subjunctive mood, denotes another type of *bhāvanā* (an energy which propels one to bring something into being). It is known as *Sabda-bhāvanā*. This view has been expressed in the *Tantra-vārttika* by Kumārila,

When one listens to a sentence containing the verb 'sacrifice' in the subjunctive mood (*i.e.* one should sacrifice) he makes out its two meanings (1) that it is his duty to perform the sacrifice and (2) that he has been induced to do it. Hence as the suffix or the inflexion, indicative of the subjunctive mood, communicates one's own obligatory duty to be discharged so it expresses an inducement to discharge it. Therefore, Kumārila, the author of *Tantra-Vārttika* holds that a sentence in the subjunctive mood points to the above two types of *bhāvanā* *i.e.* *Arthabhāvanā* and *Śabda-bhāvanā*.

Therefore, the activity of an agent towards a course of action is called *Arthabhāvanā*. The operation of a word is also known as *Śabda-bhāvanā*. These two *bhāvanās* are presented to our consciousness. As the operation belongs to a word so it is called *Śabda-bhāvanā*. If the operation which belongs to a word remains unapprehended then it does not assist the communication of sense. Hence, this *bhāvanā* is denoted by a word. Kumārila has said to this effect that the Vedic *liṃ* denotes *Śabda-bhāvanā* by its primary denotative force and assists to communicate the meaning of a Vedic sentence in the subjunctive mood.

A ŚABDA-BHĀVANĀ REQUIRES THREE CONSTITUENT ELEMENTS

A *Śabda-bhāvanā*, being itself a *bhāvanā*, requires three elements like an *Arthabhāvanā*. The three elements are as follows:—(1) What is to be accomplished *i.e.* the end is to be realised; (2) the instrument by which the end is accomplished; and (3) the manner or process, in which the action is performed. These three constituent elements should be shown. The three elements of *Śabda-bhāvanā* are as follows (1) The inclination of a listener for an obligatory duty falls under the end of *Śabda-bhāvanā*. This point has been explained before. The function of an injunction is to impel a person to an action. The primary meaning of an injunction is *Śabda-bhāvanā*. The inclination of a person is roused by an injunction. Therefore, an injunction aims at the rousing of the inclination of a person. *Śabda-bhāvanā* discharges the function of an instrumental cause or a means which operates to bring an enjoined person into relation with an action. In other words, owing to the instrumentality of *Śabda-bhāvanā* an inclination for undertaking an action is evoked. Likewise in case of *Ārthabhāvanā*, the attainment of heaven is due to the instrumentality of a sacrifice. With regard to the working of *Śabda-bhāvanā* it may be said that an inclination for performing an action is called up in the heart of a person when an obligatory duty is thoroughly determined.

Sabda-bhāvanā which is denoted by an injunctive word is the instrumental cause of the inclination of a person for a certain action. The manner of performance is fulfilled by the operation of recommendatory passages bearing upon an injunction. The listeners are not inspired to undertake actions when they listen to bare injunctions. But when they listen to various praises of such actions, contained in the recommendatory passages, they become very much pleased at heart and are inspired to undertake actions enjoined by injunctions. Thus these recommendatory passages increase the intensity of inclination. Hence the operation of recommendatory passages fulfills the procedure of Sabda-bhāvanā. The aim of Sabda-bhāvanā is to rouse the inclination of an agent for an action. Words which communicate an obligatory duty are the instrumental cause. Mandatory passages supply one with the procedure of performance. Thus, Sabda-bhāvanā which consists of three essential elements is verily an injunction:

THE DETERMINATION OF RELATION HOLDING BETWEEN AN INJUNCTION AND BHĀVANĀ

If it is held that Sabda-bhāvanā itself is an injunction then an objection may be raised against the view that it is a logical impossibility to establish unity in the different meanings of words constituting a sentence. [The sense of this objection is as follows. If an injunction implies Sabda-bhāvanā and a verb denotes the inclination of an agent then the meaning of a sentence cannot be communicated. How does a sentence communicate its meaning? If the meaning of a word is presented to us as syntactically related to that of another word in a sentence then the presentation of mutually related meanings is called verbal communication. An inflexion, indicative of the Vedic subjunctive mood, denotes Sabda-bhāvanā in the capacity of an injunction. The same inflexion denotes the inclination of an agent in the capacity of a verb. These meanings, being denoted by the same word, are presented to us. Hence, the mutual relation of these two meanings, presented to our consciousness, cannot be called the verbal communication of the meaning of a sentence.] The above objection does not hold good since both the meanings are presented to our consciousness as mutually related as the presentation, of the two meanings by the same suffix, indicative of the subjunctive mood, constitutes the connecting link. Kumārila in the chapter on sentences of his *Sloka-vārttika* has said to this effect. As an injunction and a bhāvanā are communicated to us by the same suffix so their mutual

relation is at first determined and then they are related to the meaning of the basic root.

An injunction excites the activity of an agent towards a course of action. Kumārila has rightly said that an injunction enjoins an agent to direct his own activity towards a course of action. Now, an objector raises an objection "How does an injunction relate itself with a bhāvanā?"

Now the Vārttikakāra himself has admitted that the mutual relation between an injunction and a bhāvanā is presented to our consciousness before their relation with the meaning of the root of a verb. Though an inflected word denotes the senses of both the root of a verb and the suffix attached to it yet it is to be admitted that the meaning of the root of a verb constitutes the primary material and along with it the two meanings of the limb suffix, *viz.*, an injunction and a bhāvanā are presented to our consciousness as an appendage. Therefore, the activity of an agent is related to an injunction without being directed towards a course of action. It, being directed towards a course of action, is not related to an injunction. But an agent, having his activity not directed towards a course of action, cannot perform a duty. The activity of an agent is complete when it involves three essential elements, *viz.*, (1) it is in pursuit of an end ; (2) it requires the aid of an instrumental cause ; and (3) the manner of procedure is also given. When an agent is possessed of such an activity he is capable of performing an obligatory duty ; otherwise, he is not. But an injunction does not relate itself with a complete activity. If it remains unrelated to a complete activity then how does an agent direct his activity towards a sacrifice and adopt the proper means to realise his end?

An answer to the above objection is as follows. It is a truism that an injunction does not know how to relate itself with the activity of an agent directed towards an end, *viz.*, a sacrifice etc. But as an injunction and the activity of an agent are denoted by one and the same suffix so the injunction in question communicates its relation with the bare activity of an agent. When a bare activity is excited in an agent an injunction cannot fulfill its mission. It does not relax its efforts. But it waits for the fulfilment of its mission. It behaves like a bridegroom who has been wedded to a girl who is below her teens. As he patiently looks forward to her adolescence and for the budding of her beauty in each limb with his hands stretched so the injunction tarries unless and until the activity in question takes a concrete shape, having enriched itself with all the

details, i.e., an agent engages himself in the actual performance of an obligatory duty. Kumārila has said in his Sloka-vārttika to this effect.

Though an injunction (Śabda-bhāvanā) relates itself with such an activity of an agent as has not been connected with other factors yet it does not remain in situ, being thus related since it lacks the moving force.

An injunction prompts an agent to an obligatory duty. But the activity of an agent does not become effective unless and until it is in close touch with its three elements.

An injunction comes into being but does not exercise power unless and until a bhāvanā (the activity of an agent) without depending upon others excepting an injunction becomes efficient.

The activity in question requires an end and such other requisite objects for its fruition even if the required objects are supplied by another injunctive sentence. It intends to establish its relation with such a subject-matter as has been referred to by another context. It is also desirous of establishing relation with the meaning of the root of the verb in question like the archetype. It also intends to establish a relation with a subject-matter implied by another such subject-matter. Such is the uniformly profound power of the verbal authority.

The method of interpreting an injunction in due order has been instructed by the great interpreters of the Mīmāṃsā. If we are to understand the meaning of a sentence referring to the activity of an agent then we are to pursue the method of interpretation and to unfold its meaning by degrees. A bhāvanā constitutes the meaning of a sentence. If it remains understood in a sentence then the blank place of the bhāvanā should be filled up and the import of the bhāvanā should be made out. A bhāvanā, being associated with many subsidiaries such as many species, attributes, substances, acts, etc., assumes diverse forms. But we understand the meaning of a sentence from a sentence by one and the same method.

In every case the optative ending is attached to the root of a verb and hence the activity of an agent (ārthibhāvanā) constitutes the meaning of a sentence. The said bhāvanā is qualified by many subsidiaries viz. various attributes, species etc. It is referred to by a judgment. Though a judgment refers to various objects yet it points to a unified whole. Just as a picture contains diverse lines of various colours but they represent a single form.

(As the listener of an injunction has had direct experience of the principal acts of a sacrifice and their subsidiary ones so when he

listens to the injunction. "One should sacrifice" a picture of main acts and subsidiary ones is painted in his heart since he possesses impressions arising from the said experience. When the contents of a sacrifice are thus arranged he becomes inclined to perform a sacrifice. When an agent moves to perform a sacrifice the above described judgment arises in his mind.

The concept of a bhāvanā is the result of a long drawn process of thought. It gradually unfolds itself. The bhāvanā itself is a complicated process rendered complete by its accessories. Let us take an example of a long-drawn process *viz.* the act of cooking. This act continues for sometime and consists of many acts. We commence from pouring water into a cooking pot and putting rice into it and end in the boiling of rice which is independent of other acts. The whole series of acts is known as the single act of cooking. The main act of cooking consists of several minor acts such as pouring water, placing rice inside the pot, stirring the content by waving laddle, the extraction of gruel etc. These acts extend over a long period of time. Similarly verbal knowledge is one which commences from the knowledge of the meaning of a word and ends in the knowledge of the meaning of a sentence.

Some say "The knowledge of a knower dawns with the knowledge of the meaning of a word. It blooms like a flower having the knowledge of the meaning of each constituent word as its petal. Then it develops into the form of a fruit in the shape of the knowledge of the meaning of a sentence." We need not hammer on this point any more.

Thus the meaning of a sentence goes under the name of Bhāvanā. It is the activity of an agent. It is directed towards heaven, sacrifice etc. But the activity which prompts one to do something is called Preṣaṇā. It constitutes the primary meaning of the optative ending attached to the root of a verb. Or, it is the function of an injunction. Everybody denominates it as an injunction.

AN EXAMINATION OF THE HYPOTHESIS THAT ŚABDA-BHĀVANĀ CONSTITUTES THE MEANING OF A SENTENCE

Some other thinkers do not subscribe to the above hypothesis. They point out that śabda-bhāvanā is the activity which belongs to a word, is produced and denoted by it. When a word denotes and produces śabda-bhāvanā does it do, being itself inactive? Or, does it produce a process, having recourse to a distinct activity? If the propounders of the hypothesis answer in the negative then they will

be compelled to admit that a word should directly communicate its meaning without the aid of an intervening process and the assumption of an intermediate process is redundant since it produces a process, unaided by another process. If they say in the affirmative then the hypothesis is open to the fallacy of regressus ad infinitum. They should also devise ways and means of solving the problem. But it is a hard nut to crack. We have already elaborately discussed in the chapter on the definition of proofs in general that there is no distinct process excepting the vibration of elements. The reiteration of the same topic is superfluous. The same line of thinking should be followed in this case.

With regard to the process of a word which is said to be created and denoted by it a few questions arise in our mind. Does a word firstly denote a process and then produce it? Or, does it at first bring about a process and then denote it? Or, does it simultaneously produce and denote a process? It is illogical to hold that a process is denoted when it has not come into being. Nobody christens his son when he is not born. Moreover, in that case, a word is not related to its meaning. Again, a word does not simultaneously produce and denote a process since the non-production of a process precedes its denotation and the hypothesis requires toil and trouble on the part of its propounders to be demonstrated. The alternative suggestion that a word creates and then denotes a process is not also tenable since as it does not endure long so it finds no opportunity of communicating the process after having created it.

How will the weak optative suffix in the presence of strong bulls carry a very heavy load? How will it express an agent, and the number and the activity of the agent? How will it produce an efficient force belonging to a word and communicate it? It can hardly bear the burden.

Another point deserves our special attention. How does an injunction which goes under the name of Śabda-bhāvanā relate itself with the activity of an agent—the import of a sentence?

An answer to this question has been already given. It has been replied that as an optative suffix denotes both word-efficient force and the activity of an agent so they enter into the relation of being denoted by one and the same suffix. Now, the objector points out that though the relation of being denoted has been stated yet the crux of the problem has not been touched. The activity of an agent towards a rite is known as Arthibhāvanā. It is the principal meaning of a sentence. An end, an instrumental cause and the manner

of performance are invariably required by the activity of an agent. The words such as Svarga-kāma etc. fill in with all the requisite elements. The meanings of these words render assistance to the activity of an agent as subsidiary elements. But word-efficient force fills up none of the requisite elements of the activity of an agent. Hence, it is not subservient to this activity. Two principal objects such as a jar and a piece of cloth or two principal acts such as the act of cooking and that of reading are never noticed to be mutually related as principal and accessory matters.

Now, the upholder of the hypothesis may contend that an arthībhāvanā is subordinate to a śabda-bhāvanā since the activity of an agent is conducive to the subject-matter of an injunction bearing the title of śabda-bhāvanā. If this is the contention then the objector points out that an injunction should be the import of a sentence but not the activity of an agent since the latter is subsidiary. Therefore, the assumption that an optative suffix denotes two principal meanings is not appreciated.

The hypothesis that Śabda-bhāvanā and Ārthībhāvanā are mutually related because they are denoted by one and the same suffix is not sound. The words "Akṣa", "Pāda", "Māṣa" etc. admit of various meanings but the different meanings of each word are not known to be related to one another on the above ground. Moreover, in order to serve which purpose do you hold that the same suffix denotes the above two bhāvanās? An answer is given to this effect. When we hear the optative suffix the ideas of the object to be accomplished and prompting simultaneously flash in our mind. Two distinct acts of knowing do not take place in our mind. These two contents are apprehended by the single act of knowing. If this is the case then let only one meaning be denoted by the optative suffix. If it has only one meaning then the question of the mutual relation holding between the two meanings needs no discussion. And the optative suffix is not saddled with a heavy load.

(To be continued)

THE INDIAN STRUGGLE IN SOUTH AFRICA UNDER MAHATMA GANDHI: THE BIRTH OF SATYAGRAHA (1907-1914)

SUDHANSU BIMAL MOOKERJI, M A.

"It has often happened in history that some particular person has been raised up when the aspirations and the dire needs of his generation seem to be crystallized and there is a stirring of men's hearts":

Rev. Raymond Raynes's sermon in St. Mary's Cathedral, Johannesburg (December 4, 1955). "..... it was in South Africa that the doctrine of Satyagraha was conceived, that the weapon of non-violent resistance was forged. Often there is justice in the working of history. India, though not of its own volition, had given to South Africa one of its most difficult problems. South Africa in its turn, likewise not of its own volition, gave to India the idea of civil disobedience."

Mahatma Gandhi—Edited by S. Radha Krishnan (presented to the Mahatma on his *Seventieth* birth-day, October 2, 1939), p. 121.

The 19th century was an unhappy one for the Indian community in South Africa. The 20th has been more so. It has been characterised by more and more shrewd, determined and well-thought-out *onslaughts* on the Indians' right to live as honourable citizens of their land of adoption, the land which owes its prosperity, as much, if not more, to them as to any other section of its population.

A monstrous lie is deeply *ingrained* in the soul of South Africa—the lie that one race or group is essentially superior to any other. (*Until* this *notion*) is rooted out, "we shall live in a society confused by fear, *suspicion* and self-interest driven from day to day to a barely disguised injustice." (Rev. Raymond Raynes, Sermon in St. Mary's Cathedral, Johannesburg, December 4, 1955).

The Second Anglo-Boer War broke out in 1899. The ill-treatment of British-Indian *subjects* by the Boer authorities of the South Africa Republic (the Transvaal) was publicly declared by responsible English leaders to be one of the causes of that war. Lord Lansdowne, the Secretary of State for War, and an Ex-Viceroy of India, for example, told a Sheffield audience that of all the misdeeds of the Boers,

none made him so angry as their treatment of the British-Indians. England's *failure* to remove the injustice, he added, would have its repercussions in India. Mahatma Gandhi, during his pre-Boer War residence in Pretoria had been *often* assured by the English High Commissioner, Sir Alfred—later on Lord—*Milner* that if the Transvaal became a British colony, Indian grievances would be remedied at once.

The disabilities of the Indian nationals in South Africa were—they still are—a “melancholy record, *galling* to their self-respect, and unworthy of those who permit them.”¹ The Indian National Congress, from 1894 *onwards*, pointed out year after year “how we were not permitted to *travel* without a pass, not allowed to walk about in the *night* after 9 P.M., how we were consigned to locations where refuse was short in (the) Transvaal, how we were denied admission to the first and second classes on Railways, driven out of tramcars and pushed off footpaths, kept out of hotels, and refused the benefit of Public parks and how we were *spat* upon, hissed, cursed, abused and subjected to a variety of other indignities which no human being could *patiently* bear.”²

The Transvaal and the Orange Free State were annexed to the British *Empire* in 1900 and became Crown Colonies. The Anglo-Boer hostilities however *dragged* on for some time till the peace of *Vereeniging* (May 31, 1902).

Mahatma Gandhi had, on the outbreak of the war, offered to organise an Indian Ambulance Corps. The *Natal* Government had at first refused the offer on the grounds of the incapacity of the Indians. Correspondence followed and the offer was finally accepted. Ghandhiji organised an Ambulance Corps of about 400 *Indians* and entered the Transvaal with the British *forces*. The corps displayed *marvellous* courage and discharged the duties assigned to it with conspicuous *gallantry*. It was mentioned in the despatches :

“It was officially estimated that at the outbreak of the (Second Boer) War, the minimum Indian population of the (South African) Republic was fifteen thousand, besides some thousands of other Asiatics, mostly Chinese.”³ The majority had left during the war. Some had gone to Natal and some to the Cape Colony. Others had come back to India.

¹ Sir Surendra Nath Banerjee quoted by P.S. Joshi in the *Tyranny of Colour* p. 59.

² The *History of the Congress* by B. Pattabhi Sitaramayya, Vol. I, p. 47.

³ Mahatma Gandhi by H.S.L. Polak H.N., Brailsford and Lord Pethick-Lawrence, p. 41.

The Indians naturally hoped after the war that they would have, if not a square deal, at least a better treatment than before. Many Europeans too shared their hopes and assured that the law prohibiting the purchase of land by the Indians outside Asiatic locations under Law III of 1885 could no longer be enforced. Land was therefore sold to Indians in the open market. The Registration Department however invoked Law III of 1885 and refused to register the sale deeds. Worse, however, was that many other anti-Asiatic provisions of the law, which the Boers applied with leniency or with some friendly *discriminations* in particular cases, were now enforced with strictness and rigidity. Indian immigration into the Transvaal was unrestricted in pre-Boer War days (1899-1902). A single payment of £25, soon reduced to £3 entitled an Indian to entry into and residence in the Transvaal. A certificate—a simple receipt “without identification of the holder otherwise than by name”—would be granted on payment of the above fee.

Sir Henry Cotton, President of the Indian National Congress (1904), rightly observed, “..... the British rulers of the Transvaal have applied themselves with British vigour and precision to the task of enforcing Boer laws. In dealing with Indian colonists, their little finger has been thicker than Mr. Kruger’s loins, and where he had whips, they have chastised with scorpions.” Carefully restricted numbers of Indians were allowed to return to the Transvaal shortly after the British occupation of the Colony during the war in 1900. Lord Roberts, the Commander-in-chief, ordered that all Asians in the Transvaal must be registered anew. He, however, promised that their grievances would be investigated into and redressed as soon as civil government had been properly established.

The Peace Preservation Ordinance of 1903 required all immigrants old and new alike—to provide themselves with permits for entry into the Transvaal and residence therein. For the first time, the permits were to be somewhat descriptive of the holders. Europeans, old settlers and new entrants—obtained permits easily. Non-Europeans had a different experience however. A new Department, called the Asiatic Immigrants Department was set up by the Government at Pretoria. Manned largely by British officials from India, it imposed a number of restrictions upon the entry of Indians. A few wealthy and enterprising Indians however managed to palm-grease the officials of the Asiatic Immigrants Department and returned to their pre-war homes and resumed their occupations.

Gandhiji, who had left South Africa for India towards the end of 1901, was called back to Natal towards the end of 1902 by the Indian residents there. Mr. Joseph Chamberlain, the Colonial Secretary of England, was soon to visit Natal in connection with the post-war settlement. Mr. Chamberlain arrived shortly after Gandhiji's return. An Indian deputation waited upon him. Gandhiji was the principal spokesman of the deputation. He had also drafted the memorandum submitted to Mr. Chamberlain on the occasion. It strongly protested against the disabilities imposed by the Colonial Government upon the Indians in Natal. But "Mr. Chamberlain," observes Gandhiji, "had come to get a gift of thirty-five million pounds from South Africa, and to win the hearts of Englishmen and Boers. So he gave a cold shoulder to the Indian deputation."⁴ He told the deputation, "you know the Imperial Government has little control over the Self-governing Colonies. Your grievances seem to be genuine. I shall do what I can, but you must try your best to placate the Europeans, if you wish to live in their midst." The advice was uncalled for. Was it a threat, albeit indirect?

Natal Indians next requested Gandhiji to transfer his activities on their behalf to the Transvaal. With great difficulty and only through the influence of his old friend, Mr. Alexander, the Police Chief of Durban, Gandhiji obtained permission to enter the Transvaal. He settled down at Johannesburg and started practice as an Attorney of the Supreme Court of the Transvaal (1903).

Anti-Indian sentiment, which lay dormant during the Boer War, had again raised its head in the Transvaal. European traders in a number of towns complained that non-domiciled Indians in large numbers had been illegally migrating into the Crown Colony (the Transvaal). The Government was called upon to take adequate preventive measures.

The Chief Secretary of Permits however assured Lord Milner, the Governor, that any but the smallest influx was impossible. But the latter, in his eagerness to allay the suspicions of the Europeans, consulted the Indian leaders and suggested that the Indian community in the Transvaal should re-register itself voluntarily and that the documents should give full details of the identity of the registered. He assured the Indians, "Registration gives you the right to be here and a right to come and go. Therefore, to me, registration seems a protection to you as well as a help to the Government and in any

⁴ The Story of My Experiments with Truth by M. K. Gandhi (Phoenix Press), P. 213.

Law passed I should like to see registration included—Once on the register, your position is established and no further registration is necessary, nor is any fresh permit required.”⁵

The assurance was taken at its face-value. The Indians accepted the advice and re-registration was completed to the satisfaction of the authorities. New registration certificates were issued only to the holders of Peace Preservation Ordinance permits and after the closest scrutiny. The certificate bore the permit number and gave the holder's name, family, caste or community, height, occupation, age, impression of the right thumb and father's name. Each certificate was signed and dated by the issuing Officer. The census returns of the Transvaal, April, 1904, show that the Indians numbered less than ten thousand. It is evident that many Indians, who lived in the Transvaal before the Second Boer War and had subsequently left, had not been re-admitted by the English rulers of the colony. The census figures thus give the lie direct to the propaganda of an Asiatic influx.

The Asiatic Law Amendment Ordinance (Transvaal) of 1906 proposed fresh humiliations and restrictions for the Indian community. The Ordinance conferred no new rights on them. Many an existing one, on the contrary, was taken away in a manner to “put an unnecessary affront” to a loyal, peaceful and useful element of the population. It widened the scope of Law III of 1885. But “Still worse was the condemnation as criminal of all against whom it *operated*, for it required the surrender and cancellation of all existing permits and registration certificates, and the taking of a complete set of fingerprints even from women and children over eight years, as if they had been condemned prisoners.”⁶ Lord Selborne, the Governor of the Transvaal, explained that the object of re-registration was to “provide for issue to those who are lawfully residents here (in the Transvaal) of a certificate of registration, which will be clear evidence of their right to be and remain here (in the Transvaal).”

A mass meeting of the Indians was held under Gandhiji's leadership at Johannesburg on September 11, 1906. Gandhiji himself was the principal draftsman of the resolutions placed before the meeting. One of these—the fourth—declared solemnly that the Indians would not submit to the Ordinance, if it became law, and that they would face all consequence of the defiance.

⁵ Quoted in the Asiatic Danger in the Colonies by L. E. Neame, P. X.

⁶ Mahatma Gandhi by H. S. L. Polak and Others, P. 53.

The Transvaal Legislative Council passed the Ordinance. It was however not to apply to women.⁷ The Ordinance was sent for Royal assent. A two-man deputation composed of Gandhiji and Mr. H.O. Ally sailed for England to place the Indian point of view before the British Government and the British public. The mission was successful and Lord Elgin, the Secretary of State for colonies, refused to *recommend* the Ordinance for Royal assent.

The triumph of the Indians was, however, short-lived. In the same year 1906, Lord Elgin, on the suggestion of Lord Selborne, advised Lord Morley, the Secretary of State for India, to approve of legislation banning the entry of Indians into the Transvaal in future. Morley agreed with Viceroy Lord Minto that the suggestion of Lord Selborne was the only practical solution of the Indian question.

Responsible Government was granted to the Transvaal as from January 1, 1907. Lord Elgin had already assured Sir Richard Solomon, the Attorney General of the Transvaal, that though it was the duty of the Imperial Government to disallow the Ordinance of 1906 on grounds of racial discrimination, it was extremely unlikely that they would intervene in the matter when self government was in operation and a responsible government was in power.

The assurance was in fact a betrayal of the Transvaal Indians by the Imperial government. It was an encouragement, if not an inducement, to the Europeans to resume their anti-Asian offensive. The latter took the cue and started an anti-Indian 'jihad'. General Botha, the Boer candidate for the Premiership of the Transvaal in the new set-up, is reported to have publicly declared in one of his election addresses in the *beginning* of 1907 that if his party were voted to Power, it would pack the 'coolies' out of the country within four years. Botha's ablest colleague and collaborator, General J. C. Smuts, had written a little earlier to a prominent Natal politician, "The Asiatic cancer, which has already eaten so deeply into the vitals of South Africa, ought to be resolutely eradicated." The leader of the British Progressive Party came out with the statement that he believed with others that the expulsion of the Asians was a right thing. He welcomed the day when all Asians would have to leave the Transvaal. Sir Richard Solomon, regarded as a *strong* rival of General Botha for the premiership, went out of his way to suggest that the 'reserva-

⁷ The exemption of women was the out-come of an Indian deputation to the Colonial Secretary of the Transvaal. He agreed to amend the original proposal by exempting women.

tion clauses' in the new Transvaal constitution would be a dead letter in practice. The views of these leaders, needless to say, were but an echo of the Anglo-Boer Public opinion. The shape of things to come had begun to emerge in bold outlines.

The first Parliament of the Transvaal under responsible Government met in March, 1907. General Botha formed the Government. General Smuts became his Colonial Secretary in charge of Asiatic Affairs. The Ordinance of 1906 was re-introduced and passed by both Houses of the Transvaal Parliament within twenty-four hours and without any *discussion* worth the name. Indian *representations* against the measure were ignored. Indians had offered to *re-register* voluntarily. The offer was not accepted. The Transvaal hailed the law. One of the most influential Johannesburg Papers commented: "It is a case of intense satisfaction to us, and, we doubt not, to men of all parties, that the first legislative enactment of the new Parliament should be one which asserts the right of the colony to manage its own *affairs*."

Lord Selborne, the Governor of the Transvaal, one of whose constitutional functions was to protect those who were unrepresented in the Transvaal Parliament, gave his blessings to the legislation, which came to be known as the Asiatic Law Amendment Act or Act II, 1907. It obtained Royal assent without much difficulty.

If the Peace Preservation Ordinance, 1903 (Transvaal), was the Indian's reward for the noble part played by the Indian Ambulance Corps during the Second Boer War, Act II, 1907, was no less so for the selfless services of the Indian Strecherbearer Company during the Zulu Rebellion in Natal (1906)

A principal consideration for Royal assent to Act II, 1907, argues Mr. Polak, "was the probability of the resignation of the Botha Government and the refusal of any other party to take office if the measure were again disallowed,"⁸

Act II of 1907, rightly called the 'Murderous Act' by Gandhi, was to come into effect on and from July 1, 1907. Indians were to register themselves under the Act by July 31. The Indian community under the inspiring leadership of Gandhi rose as one man, determined to resist the Act, also known as the Black Act. Mass meetings of Indians all over the Transvaal took a pledge of non-submission to the Act. A Passive Resistance Association was organised.

⁸ Mahatma Gandhi by H. S. L. Polak and Others, P. 56.

The pledge of non-submission to the Black Act was the beginning of a new chapter in the history of the Indians in South Africa. The era of prayers and petitions against injustice and oppression was at an end. That of resistance to racial antagonism was to begin. The idea of 'Satyagraha' was born in the crucibles of the sufferings and humiliations of the Indians in South Africa. 'Satyagraha,' generally translated as "passive resistance", and regarded as a "weapon of the weak", is, according to Gandhiji, the prophet of 'Satyagraha,' an expression of soul force."

Indian Volunteers picketed the Registration offices. They had been instructed not to threaten anybody, nor to use violence. They were to persuade not to coerce. If the police intervened, they were not to resist. The Volunteers of the Passive Resistance Association helped in creating an enlightened Indian public opinion in South Africa. They distributed literature explaining the implication of registration under the Black Act. Very few Indians came forward for registration. The Indians memorialised General Botha offering voluntary re-registration conditionally upon the suspension of the operation of the Act and the subsequent repeal thereof if the voluntary re-registration was successful. The General remained firm, however.

Mr. William Hosken, a Liberal M. P. of the Transvaal, attended an Indian mass meeting at Pretoria on July 31 (1907). Mr. Hosken, a friend of the Indian Community, and later on, the Chairman of a Committee of European sympathisers with the Indian cause, carried a message from General Botha. He addressed the meeting and explained how difficult Botha's position was "in the face of all but unanimous views of the European legislators and the solid support of public opinion." He told his audience how powerful the Government was and explained at length the consequences of a struggle. He expressed his sympathy for the Indians and urged them to prove their loyalty and love of peace by submitting to the obnoxious Act. Gandhiji translated Hosken's speech word for word. He explained at the same time the significance of the note of warning sounded by the speaker. The meeting was next addressed by an Indian merchant, Ahmed Mohamed Cachalia by name. An obscure figure in public life at the time, Cachalia made great sacrifices for the community—he courted financial ruin and insolvency—and became the most trusted leader of the Transvaal Indians, second only to Gandhi. He declared in an impassioned speech that having once taken the pledge of non-submission to the Black Act, he would keep it even at the cost of his life. The speech was acclaimed with loud cheers. The

meeting decided unanimously to defy the Act and continue the struggle.

As if the Black Act (Act II, 1907) was not enough, the Government passed the Immigration Restriction Act—Act XV of 1907—to further humiliate the Indians. Read with the former, it treated as ‘prohibited immigrants’ those who could pass its tests but were ineligible for registration under the former. Section 2 (4) of the Act defined a ‘prohibited immigrant’ as a person unable to write out or sign in a European language an application for permission to enter the Transvaal. The Act ignored the right of residence of those who had paid £3 before 1899 to the Boer Government for settlement under Law III of 1885 but were not able to return to the Transvaal after the War for the obstacles placed in the way of their securing permits under the Peace Preservation Ordinance (1903). Section 2(4) of Act XV, 1907, prevented the entry into the Transvaal of Asians not provided with permits under the above Ordinance. Though it did not mention Asians, it was deliberately framed for them and was interpreted in the courts in that sense.⁹

New immigrants from Asia ineligible for registration under Act II, 1907, were included in the category of ‘Prohibited immigrants’ under Act XV, 1907. Act II, originally meant to be temporary, was made permanent by the very first Section of Act XV. The latter gave discretionary power to the Colonial Secretary of the Transvaal to remove certain categories of undesirable persons from the colony. An Asian, who neglected or was unwilling or unable to obtain legally a certificate of registration under Act II, was among the undesirables. Act XV amended Act II to the serious disadvantage of the Indians. The latter had provided for a notice of removal from the Transvaal and for imprisonment for three months or a fine of £'00; in case the notice was ignored. Section 6(B) of Act XV, however, provided for physical and forcible deportation involving the confiscation of the property of those failing to register themselves under Act II. The Act was based on the presumption of illicit Indian influx. The Indians asked for a commission to investigate into the alleged influx. The prayer was turned down. They next offered to undergo voluntary registration, provided Act II was repealed. Gandhiji pleaded that in all other British colonies the right of entry and residence of a person was decided judicially and not by administrative officers and that the Transvaal should be no exception. The Botha

⁹ C.D. 5363 of September, 1910, Letter of General Smuts, dated 26. 8. 1909.—*Vide* Indians Overseas by C. Kondapi, pp. 190-92.

Government, however, insisted on treating all holders of Dutch registration certificates and pre-Boer War Indian refugees as had not yet returned to the Transvaal as "prohibited immigrants". The declaration of responsible British officials that the domiciliary rights of pre-Boer War Asian residents would be respected was thus nullified.

The Indians had already made up their mind to resist the Black Act and to get it removed from the Statute Book. Act XV did not worry them much. They knew that with the repeal of the former, all special obstacles to the entry of educated Indians would be removed.

The governmental machinery was soon set in motion. A number of comparatively little known Indians were summoned before a Pretoria Magistrate to show cause why they should not be ordered to leave the Transvaal for having failed to apply for registration within the prescribed time-limit (July 31). They were declared 'prohibited immigrants' and ordered to leave the country within a specified period. They all disobeyed and were sentenced to short terms of simple imprisonment.

The Indian opinion, started by Gandhiji in Natal in 1904, proved "a most useful and potent weapon" in the Indian struggle. It educated the Indian Community all over South Africa and kept Indians at home and the British public opinion in touch with the happenings in South Africa. The details, the objectives and the technique of the Indian struggle were openly discussed in the columns of the Indian opinion. It may be recalled with interest that the officials of the Transvaal Asiatic Immigrants Department were among the more serious and careful readers of the Indian opinion.

Mahatma Gandhi and a number of his well-known associates including the President of the Transvaal Chinese Association¹⁰ were asked to show cause why they would not be dealt with as the Indians noted above. They appeared before a Magistrate on the day fixed for their case (December 27, 1907). All were asked to produce certificates of registration under the Black Act or to leave the Transvaal some within 48 hours, some within a week and others again within two weeks. The order was defied and Gandhi with several others attended the court on January 10, 1908, to receive punishment. All pleaded guilty to the charge of having defied the Magistrate's

¹⁰ Mr. Quin—There were between 300 and 400 Chinese in the (Mr. Quin)—Transvaal at the time. They were mostly cultivators and businessmen. The Black Act was applicable to them as well. So they too joined the 'Satyagraha.' But they worked through their own organisation to the last, *Vide* Satyagraha in South Africa by M. K. Gandhi, Part I, Chapter XX.

order. None defended himself. All were sentenced to imprisonment, Gandhi being awarded two months' simple imprisonment. The imprisonment of the leaders, far from demoralising the rank and file, gave an impetus to the 'Satyagraha' movement. More and more Indian prisoners poured into jails. In the beginning, only simple imprisonment would be awarded. Later on, however, everyone hauled up for resistance to Act II of 1907 would be sentenced to rigorous imprisonment. No leniency was shown even to women resisters.

Of the more than 10,000 Transvaal Indians, not more than 500, a bare 5%, may be, less, registered themselves under the Black Act. The rest faced the consequences of resistance—loss of the right to trade, incarceration and deportation. Indian hawkers refused to show their licences¹¹ to the police. According to Gandhiji, more than 150 Indians courted imprisonment. A contemporary estimate, however, puts the number at 120. Life in the jails was hard for the Indian prisoners. They were lodged in the African wards. The cells were verminous and overcrowded. In one small yard in a Johannesburg jail "a hundred and fifty Indians occupied the space meant for forty-five."¹² Food was bad. The Medical Superintendent was indifferent. The Indian prisoners used to put on the Negro prison-uniform. It is interesting to recall that the famous Gandhi cap is a replica of the head gear that Gandhiji wore as a coloured prisoner in South African jails.

The Government were alarmed by the rising tempo of the Indians' struggle. General Smuts, who refused to see Gandhi, not long ago, had to change his mind and opened negotiations through Mr. Albert Cartwright, the Editor of the Transvaal Times. Mr. Cartwright, a well-wisher of the Indian community, was a personal friend of Gandhi. He had on his own initiative seen General Smuts after Gandhiji's imprisonment. The General had gladly accepted Cartwright's offer of mediation. Cartwright had also met the Indian leaders at large. They had told him that they could not do anything without the advice of their chief, Gandhi. Hence, his mission, Cartwright carried with him the terms of a settlement, which had perhaps the approval of General Smuts. The terms proposed were :

(i) that the Indians should register themselves voluntarily and not under Act II, 1907 ;

¹¹ These licences were issued only on the strength of the certificate of registration under the Black Act and had to be produced on demand by the police.

¹² General Smuts by Mrs. S. G. Millin.

(ii) that the details to be given in a certificate of registration should be decided after consultation between the Government and the Indian community ;

(iii) that if the majority of the Indians registered themselves voluntarily, Act II, 1907, would be repealed and the Government would take steps to legalise the voluntary registration.

There was some vagueness about the condition regarding the repeal of the Black Act (Act II, 1907). Gandhiji sought clarification and suggested an amendment. Cartwright was hesitant and said that Smuts regarded the draft as final. Gandhiji consulted his colleagues in jail and insisted on the amendment. The proposed alteration was signed by them and Cartwright agreed to place it before Smuts for his consideration and consent.

On January 30, 1908, exactly forty years before his assassination, Gandhiji was taken from Johannesburg to Pretoria for an interview with Smuts. The two met for the first time. In a long talk they discussed the original draft and the suggested amendment in details. It is clear from Gandhiji's account of the interview¹³ that he thought that Smuts had accepted the amendment in the original draft and undertaken to repeal Act II, 1907. As soon as most of the Indians had been voluntarily registered.

Gandhiji with all the 'Satyagrahis' in jail were released immediately after the Smuts-Gandhiji conference. A public meeting was held in the Transvaal Mosque grounds at about midnight on January 30, 1908. The Indian leaders outside jail had been met by Gandhiji immediately after his release. They had been acquainted with the latest development and were in agreement with what had been done. Gandhiji himself was, however, assailed with suspicions and misgivings—"What if General Smuts broke faith with us? The Black Act might not be enforced, but it would always hang over our heads like Damocle's sword. If, in the meanwhile, we registered voluntarily, we would have knowingly played in the adversary's hands, and surrendered the most powerful weapon in our possession for resisting the Act. The right order for the settlement was that the Act should be repealed first, and then we should be called upon to register voluntarily."¹⁴

Gandhiji addressed the meeting. Hardly had he finished his speech when a Stalwart Pathan rose from among the audience and put a number of questions to Gandhiji. "Shall we have to give the

¹³ Satyagraha in South Africa by M. K. Gandhi, p. 242.

¹⁴ Satyagraha in South Africa by M. K. Gandhi, pp. 245-46.

ten finger-prints under the settlement?" Gandhiji replied that those who had a conscientious objection to the giving of finger-prints or those who thought it derogatory to their self-respect, would not be obliged to do so. "What will you do yourself?" The reply was—"I have decided to give ten finger-prints. It may not be for me not to give them myself while advising others to do so." Further questions followed and Gandhiji tried to explain how the situation was now vitally different from what it would have been under Act II, 1907, which was to be repealed.

The questioner would not accept any explanation whatever. He shouted, "We have heard that you have betrayed the community and sold it to General Smuts for £15,000. We will never give the finger-prints nor allow others to do so. I swear with Allah as my witness, that I will kill the man who takes the lead in applying for registration." Gandhiji took up the Pathan's challenge. He made it clear that he would help in all possible ways anyone who objected to giving finger-impressions. Gandhiji protested at the same time against the Pathan's threat. He also told his audience that as the principal party responsible for the settlement and as a servant of the community, he regarded it as his duty to take the lead in giving finger-impressions.

The opposition from the Pathan was symptomatic. Gandhiji points out in his "Satyagraha in South Africa"¹⁵ that many a blacksheep among the Indians in the Transvaal were against a compromise between the Government and the 'Satyagrahis'. They wanted a prolongation, if not a perpetuation, of the conflict. These were the few Indians who had meekly submitted to act II, 1907, and those who secretly made their way into the Transvaal without permits. The latter were earning a lot by helping others to enter the Transvaal without permits or with forged documents.

The Pathan's interrogation made little impression on the assembly and the settlement was endorsed almost unanimously. But on his way to the registration office with a few friends including Yusuf Mian, the President of the Passive Resistance Association, Gandhiji was beaten up by a group of Pathans (February 10, 1908). Mir Alam, an old client of Gandhiji, was among the assailants. Gandhiji dropped down senseless and would have been killed but for the intervention of some European passers-by, who caught hold of the rowdies and handed them over to the police. Gandhiji was carried to a European friend's office nearby. He was still uncon-

¹⁵ Part I, Chapter xxii.

scious. After he had come back to his senses, he was removed to the house of a Baptist missionary friend of his, Rev. Joseph J. Dokes. The Dokes nursed him back to recovery. Gandhiji asked for the release of the Pathans before his removal to the Dokes's. The police, however, did not agree. The Registrar of Asiatics who had come to see Gandhiji after the assault, registered him on his own request, on the same day (February 10, 1908). Gandhiji gave his finger-impres-sions and obtained a certificate of registration. He next sent a telegram to the Attorney General of the Transvaal requesting him to drop the proceedings against the Pathans. He further informed the Attorney General that if they were prosecuted, he (Gandhi) would not depose against them. He was informed in reply that the Pathans would be released. The Attorney General had to change his decision later on under the pressure of the Europeans of Johannesburg. The law took its course. Some Europeans were summoned as prosecution witnesses. Six months' hard labour¹⁶ was awarded to each of the assailants of Gandhiji.

Gandhiji proceeded to Natal after his recovery. Some Pathans tried to assault him in a public meeting at Durban. He was saved only by the timely intervention of some friends. During his absence in Natal almost all the Transvaal Indians registered themselves voluntarily.

The Transvaal Indians, naturally enough, now hopefully looked forward to the repeal of the obnoxious Act (Act II, 1907). It was not repealed however. A new Bill was introduced in the Parliament instead. It validated the voluntary registrations and the certificates issued after the date fixed (July 31, 1907) under Act II, 1907. Those who had taken out registration certificates voluntarily were not to be affected by the new law, which "made further provisions for the registration of Asiatics."¹⁷ "In effect," observes Mr. Polak, "there were to come into force two concurrent laws having the same objects, freshly arriving Indians as well as later applicants for registration still being subject to the Black Act."¹⁸

Gandhiji wrote to General Smuts that the Bill was a breach of the compromise. He drew the General's attention to a passage in a public speech delivered by the latter within a week of the settlement — "The Indians' second contention was that they would never register

¹⁶ Three months, according to Mr. H. S. L. Polak (*vide* Mahatma Gandhi by Polak and others, p. 66); but it was six months according to Mahatmā Gandhi himself (*vide* Satyagraha in South Africa, Pt. I, Chapter XXII)

¹⁷ The Bill was duly passed and came to be known as the Asiatic Registration Amendment Act or Act XXXVI of 1908. *Vide* Indians Overseas by C. Kondapi, p. 182-83.

¹⁸ Mahatma Gandhi by Polak and others, p. 67.

unless the law had been repealed..... He had told them (Indians) that the Law (Act II, 1907) would not be repealed so long as there was an Asiatic in the country who had not registered.....until every Indian in the country had registered, the Law would not be repealed.”¹⁹ Gandhiji rightly characterised the action of the Government as “foul play” and asked the Indian community to get ready for a renewal of the ‘Satyagraha.’

A petition against the Bill was submitted to the Parliament on behalf of the Indians. It declared that if Act II, 1907, were not repealed and the decision to that effect not communicated (to the petitioners) by August 10, 1908, the Indians would burn their certificates of registration and “humbly but firmly take the consequences”. Mr. Polak sums up the European reactions to the Indians’ petition in the following words—“The Document was held to contain two grounds of offence. One was that it prescribed a time-limit for a reply. The other was the audacity of a non-white community in challenging a decision taken by a white Government, responsible to a legislature composed solely of Europeans representing an entirely European electorate. To many South African Europeans these were unpardonable faults, requiring condign punishment. A number, however, congratulated the Indians on their courage.”²⁰

A largely attended meeting of the Indians was held in Johannesburg Mosque grounds two hours after the expiry of the time-limit on August 10. Gandhiji addressed the meeting. After his speech Mir Alam, the Pathan, who had led the assault on him on February 10, and had been just released from jail, publicly expressed regret for what he had done. He handed over his original certificate²¹ to be burnt. Thousands of certificates were then collected and thrown into a huge cauldron, which was set ablaze by the President of the meeting. A journalist who was present in the meeting and reported the proceedings, compared the bonfire of certificates to the Boston Tea Party of 1773, which finally led to the American War of Independence resulting in the loss of Britain’s empire in the New World.

The struggle started afresh with Ahmed Mahomed Cachalia as one of its leaders. His European creditors, demanded that he should either pay them immediately or take his hands off the ‘Satyagraha.’ He would do neither and was threatened with insolvency proceedings.

¹⁹ *Vide* Satyagraha in South Africa, by M. K. Gandhi, p. 301.

²⁰ Mahatma Gandhi by H. S. L. Polak and others, p. 69.

²¹ The certificate granted to all Asians on payment of £3 by the South African Republican Government under Law III, 1885. Mir Alam had not taken out a certificate under the agreement of January, 1908.

Gandhiji tried a compromise. He failed. The motive of the creditors was political and the debtor did not bend. Nor did he accept offers of loan from Indian friends to meet the demands of his European creditors. Insolvency proceedings were instituted against Cachalia. His finances were in good order. His debts were fully covered. Yet he was declared an insolvent on purely technical grounds. Insolvency made Cachalia more popular, more respected, than before.

The new struggle was directed against the Asiatic Registration Amendment Act (Act XXXVI, 1908). It treated as 'prohibited immigrants' those who could pass the education tests under the Immigration Restriction Act (Act XV, 1907), but were ineligible for registration under the Black Act (Act II, 1907). The result was that no newly arrived Indian could enter the Transvaal, however high his educational qualifications might be. Two measures—Acts II and XV of 1907—were in operation against them. The Indians would not have demanded the amendment of Act XXXVI (1908), had Act II (1907) been repealed. The Indians and their European sympathisers made futile representations to the Government. Smuts was adamant. Gandhiji, he said, was a "cunning fellow" and might do his worst. He would neither repeal Act II nor amend Act XXXVI, come what may.

A Section of the Transvaal Indians demanded that the struggle should be directed against all anti-Asian legislation throughout South Africa. Gandhiji dissuaded them from pressing the demand, not very easily, however.

The renewed 'Satyagraha' movement being directed against Act XXXVI, 1908, it was necessary to challenge that Law as well as Act II, 1907, after due notice to the authorities. Accordingly, some leading Indian traders of Natal, who had earlier domicile rights in the Transvaal, and some educated Natal Indians crossed into the Transvaal after due notice to the Government. They were all arrested inside the Transvaal territory and sentenced to rigorous imprisonment in the jails of the Transvaal. The 'Satyagrahis' registered in the Transvaal sought new methods of courting arrest. Under the laws of the Transvaal, hawkers—Asian and otherwise—had to obtain licences for hawking. The 'Satyagrahis' took to hawking without licences. The offenders were arrested and jailed. The jails were soon overcrowded by Indian 'Satyagrahis'. Most of them were given rigorous imprisonment. The prison officials left nothing undone to harass the 'Satyagrahi' prisoners. They had to

break stones and make roads. Food was poor. Prisoners were *separated* from friends and kept in solitary confinement without adequate exercise. Gandhiji himself suffered many of these hardships during one of his terms of imprisonment.²²

The 'Satyagrahis' were not to be demoralised in this way. Many of them courted imprisonment again and again. Many were financially ruined. Not a few were driven out of their homes. The jail had no terror for the 'Satyagrahis'. There were more prisoners than the jails could easily accommodate. Government expenses were mounting.

The Government decided to send the law-breakers back to India. Acts II and XV of 1907²³ had armed them (the Government) with the power. A 'Prohibited Immigrant' under the Acts could be dealt with in three ways—fines, imprisonment and deportation. Batches of 'Satyagrahis' were arrested and escorted across the Transvaal borders into the Orange Free State, the Delagoa Bay, and Natal. The 'trespassers' from Natal would be escorted beyond Volksrust, the last railway station within the Transvaal on Natal-Transvaal border. These deportations made the 'Satyagrahis' more determined than ever.

The Government, therefore, hit upon the idea of deporting the Satyagrahis to India. A number of them were arrested and shipped to India. The question of the deportation of Indians to India without allowing them the right of appeal against the decisions of inferior courts was referred to Lord Crewe by Lord Morley. One was at the time the Secretary of State for Colonies and the other, the Secretary of State for India. The reply of Lord Crewe was not helpful. He cited the Transvaal Supreme Court decision in Randeria's Case²⁴ that no right of appeal existed against such an order. The deportations were continued on a large scale in 1910. Most of the deportees had been voluntarily registered under the January, 1908 settlement and their registration had been validated by Act XXXVI of 1908. The Transvaal Supreme Court held in the case of Naidoo and others Vs. Rex²⁵ that deportations in such

²² Smuts sent him some books on another occasion to relieve the dull monotony of jail life—*vide* Mahatma Gandhi by H.S.L. Polak and others, p. 72.

²³ The former provided for compulsory registration or in default for a fine of £100 or imprisonment up to three years. The latter provided in Section 6 (B) for physical and forcible deportation involving confiscation of property of those failing to register themselves under the former. Lord Elgin, the Secretary of State for India, commented at the time—"His Majesty's Government were convinced that no precedent for such power exists in legislation of any responsibly governed colony." Lord Selborne, the Governor of the Transvaal, admitted that these provisions were really stringent.

²⁴ Further Correspondence, C.M.D. 5363, Sept. 1910, p. 19, Letter dated May 27, 1909.

²⁵ *Ibid.*, p. 113, Telegram dated June 8, 1910.

cases and under such circumstances were unlawful. Lord Crewe drew the attention of the Governor-General of the Union of South Africa, which had come into existence in 1909, to the serious political results likely to follow from further deportations and suggested suspension. If, however, that was not possible, at least such deportations to which reasonable exception might be taken should be suspended. The Transvaal Ministers replied that with regard to future deportations instructions had been given to the Police to be very careful that the voluntarily registered Indians were not in any way affected.

Deportation and imprisonment of the 'Satyagrahis', however, continued. The leaders of the movement remained firm. But the rank and file showed signs of demoralisation. Many dropped off out of fear, defeatism or "war-weariness". The Government too had lost face. For one thing, it was clear that an unarmed minority refused to bow down to the laws of the Government, which the latter tried to enforce by threats, harassment and punishment. For another, the Courts of the same government had condemned the action of the Government in a number of cases as illegal.

A Union of South Africa comprising Natal, the Orange Free State, the Transvaal and the Cape Colony had been taking shape while the struggle was going on. A draft Union Constitution had been drawn up and accepted by the English and the Boer leaders. They now approached the Imperial Government for approval and assent. The Transvaal Indians feared that their lot would be more miserable in the proposed Union of South Africa. A two-member Indian delegation composed of Gandhiji and Seth Haji Habib was sent to England by the Transvaal Indian community to place the Indian point of view before the British public and Parliament. The delegation met Lord Crewe, Lord Morley, several Members of the Parliament, and a number of men prominent in public life. The delegation contacted the British press as well. Lord Ampthill, the President of the South African British Indian Committee, and a sincere friend of India, acted as the intermediary between the Indian delegation and General Botha, General Smuts and other South African leaders, who were in England at that time. Lord Ampthill informed the Indian delegation that General Botha was prepared to grant one or two minor concessions to the Indians; but he (Botha) would neither repeal Act II, 1907, nor amend Act XXXVI, 1908. Nor would he abolish the existing colour bar. Smuts was in agreement with Botha. The late G. K. Gokhale gave out in a public

meeting in India shortly afterwards that *Smuts* had told Lord Crewe that he (*Smuts*) was not prepared to admit even the theoretical equality of Asiatics with the Whites.

Lord Ampthill pointed out to Gandhiji that the rejection of the concessions offered would mean further useless sufferings for the Indians. *Seth* Haji Habib, who claimed to voice the opinion of the majority of the Transvaal Indians, expressed his willingness to accept the concessions offered. But Gandhiji told Lord Ampthill that he (Gandhiji) and the 'Satyagrahis' would know no rest till they had obtained not only practical relief but the recognition of the principle involved as well.

A delegation of the Transvaal Indians was to visit India about this time. Mr. H.S.L. Polak, whom Gandhiji had come to know in South Africa and had won over to the Indian cause, was to lead the proposed delegation of four. But all the members except Polak had been arrested and imprisoned, before the departure of the delegation. Polak, a trusted lieutenant of Gandhiji, was at this time the Editor of the Indian Opinion. Polak alone came to India and acquainted Gokhale and other Indian leaders with the condition of Indians in South Africa and what they were fighting for. Public opinion in India was roused and Polak was invited to address the 24th session of the Indian National Congress at Lahore in 1909. In the same session Gokhale moved a resolution of encouragement to and sympathy with the Indian 'Satyagrahis' in the Transvaal. He urged "the necessity of prohibiting the recruitment of indentured labour for any portion of the South African Union, and of dealing with the authorities there in the same manner in which the latter deal with Indian interests, so long as they adhere to the selfish and one-sided policy which they proclaim and practise, and persist in their present course of denying to His Majesty's Indian subjects their just rights as citizens of the Empire". It may be noted in passing that Mr. Polak makes a mistake when he says that this was the first occasion when India advocated a policy of retaliation against the Government of South Africa. A resolution in an almost identical language had been adopted by the 24th session of the Indian National Congress at Madras one year earlier (1908). It does not, however, specify South Africa and runs as follows—"The Congress begs earnestly to press upon the British Parliament and the Government of India the desirability of dealing with the self-governing Colonies in the same manner in which the latter ruthlessly deal with Indian interests, as long as they adhere to the selfish and one-sided

policy which they proclaim and practise, and persist in their present course of denying to His Majesty's Indian subjects their just rights as citizens of the Empire''. A similar resolution was adopted by the 26th session of the Indian National Congress at Calcutta in 1911. The policy enunciated in 1908 was given a concrete shape forty years later in the Indian Reciprocity Act. ♦

Gokhale had more than once raised the South African Indian question in the Imperial Legislative Council. He moved a resolution in the Council on February 25, 1910, recommending that the recruitment of indentured labour in British India for Natal should be stopped. The resolution was passed unanimously. The Government too accepted it. Negotiations with the South African Government began. But the Botha Ministry set its face against any concession to Indians in any vital or fundamental matter. The Government of India, therefore, prohibited indentured emigration to Natal with effect from July 1, 1911.

(To be continued)

FROM SUBJECTION TO FREEDOM : REVOLUTION IN WOMAN'S STATUS

KALYANKUMAR BANERJEE

“ If a woman becomes weary and at last dead from bearing, that matters not, let her die only from bearing, she is there to do it.” The dictum is Martin Luther’s. In the *Feminine Point of View* published in 1952, there is a trenchant criticism of an alleged lapse on the part of Toynbee in the following words : “ He is seeking far and wide for explanations of the repeated breakdown of civilizations through war and conflict; . . . he does not mention the position of women. One concludes that he has never even considered whether there might be any connection between the subordination of women in all these doomed civilizations and the glorification of war.” A period of about four hundred years separates the two views. One represents the helplessness and the passive role of women in society. The other is an index of woman’s initiative and assertiveness.

Talking of her own country, Vera Brittain characterises this wonderful transformation of the woman as Britain’s most colourful revolution. The Feminist movement in England, specially of the 20th century, has undoubtedly an element of excitement and adventure about it, though England was not the first country to have the distinction of ensuring equal political rights to women. The victory of the British woman was, however, spectacular and convincing. The silent revolution in the status and dignity of women all the world over in the course of the last two wars and the increased participation of women in the national liberation movements are phenomena of profound significance to the history of mankind. They register a tremendous change. This significant change was reflected in the United Nations General Assembly resolution of December, 1946, calling on all member states “ to adopt measures necessary to fulfil the purposes and aims of the charter . . . by granting the women the same political rights as to men.”

To-day the denial of equal voting rights to women is considered an exception. Not many years ago that was considered as very general and reasonable. Even political revolutions of the past thought strictly in terms of men’s rights. The revolutionists fought for a voice in their own government. And though the men in such a struggle were

almost always helped by some women, once the revolutionists had gained their rights, the men spoke for themselves as well as for women. Not that women never advocated their own cause. Olympe de Gouges laid before the Convention of Revolutionary France a 'Declaration of the Rights of Woman.' Mrs. Adams wrote to her husband John Adams when he had been attending the Continental Congress in America, "If particular care and attention are not paid to the ladies we are determined to foment a rebellion and will not hold ourselves bound to obey any laws in which we have no voice or representation." In 1778, Mrs. Corbin, sister of Richard Henry Lee presented a petition for the right to vote.

In some parts of America the fight against slavery and the fight for woman's suffrage went hand in hand. Women's conventions demanding voting rights became quite usual in the second half of the last century. In the early forties Mrs. Lucretia Mott and others of the United States lectured in England on woman's vote. The occasion was provided by the World's Anti-Slavery Convention of 1840 in London to which, however, the female delegates from the United States had been denied admission. Coming back home Mrs. Mott, Mrs. Stanton and another lady issued an unsigned appeal in June, 1848, for the first Woman's Rights Convention in history. The Convention, the first of its kind met in the following month in Seneca Falls. Meanwhile, the sponsors had prepared a declaration of rights modelled after the Declaration of Independence. The Convention was presided over by Mr. Mott. From 1854 Susan B. Anthony pleaded for women's emancipation before hostile crowds and sought to change the mind of a nation.

The women's movement in general conformity with the spirit of the Civil War stood in the early phase, equally for black and white women. In 1869, however, was formed the National Woman Suffrage Association. An exclusively white women's association, its object was to secure a 16th Amendment to the Federal Constitution which would enfranchise women. This and a second body that demanded amendments to state constitutions for the same purpose, ultimately created the National American Woman Suffrage Association. The movement, therefore; was conducted Unionwise as well as Statewise.

The first victories were won in the States, by January 1, 1919, women of 30 States out of 48, possessed the right to vote for 330 of the 531 presidential electors. 60 senators and 154 representatives were elected partly by the votes of women. The question of the federal amendment was seriously taken up late in 1917. The House of Representatives passed the amendment by a bare majority on January

10, 1918. The Senate finally yielded on June 3, 1919. The suffragists did not allow the grass to grow under their feet. The ratification by 36 state legislatures was now required. The large majority of the states had, however, adjourned before June 4. Mrs. Chapman Catt, President of the National Association, persuaded many of the State Governors to summon special sessions of the legislatures. Eight States ratified the suffrage amendment in regular sessions, twenty-nine in special. And the women of the entire country voted in 1920 General Elections.

In England, within 20 years of the end of the Napoleonic wars, there was a wave of reforms. The subsequent years saw, among other things, a still more widening of the franchise, the spread of socialistic ideas, the growth of the trade union movement, the extension of educational opportunities, and, a movement for the higher education of women. There was a steady advance in the campaign for women's emancipation. A few legal concessions were made to married women, *e.g.*, the introduction of an unequal divorce law in 1857, and, the introduction of a wife's right to own property by the Acts of 1870 and 1882. Since 1870 both sexes equally received elementary education. The universities were then assailed and vanquished. London admitted women to examinations and degrees in 1878. Then came Manchester Liverpool and Leeds in 1880. Cambridge and Oxford opened their Honours examinations to women between 1881 and 1894. But a citizens, women continued to be definitely inferior to men. The progress of women was municipal rather than national. They had been granted a local government vote. By the turn of the century, however the movement for women's emancipation assumed a political colour. It became increasingly evident that legal and social reforms depended upon a change of status. This change could be accomplished only by political means. But not before women had proved their eagerness to buy freedom and equality through suffering and sacrifice did the demand for woman suffrage evoke the sympathy of millions.

John Stuart Mill, the father of many progressive movements and ideas of modern history, had the distinction of initiating the first Parliamentary debate on women's suffrage in 1867. Two years later he published the *Subjection of Women*, and, thereby tried to draw the attention of the small enlightened section of the country to the woman's problem. The whole social atmosphere was, however, against the cause of women. Dame Millicent Fawcett, leader of the constitutional suffrage movement until the rise of the militant suffragettes said that in 1871, "and for many years after, it was the general habit of members of Parliament to receive any mention

women, or of childbirth, with roars of laughter." This attitude of contempt very largely explains why the constitutional suffragists with all their passionate enthusiasm and sincerity could achieve so little. Gladstone writing in August, 1892, expressed his objection to Sir Albert Rollit's bill to extend the Parliamentary franchise to women in the following words—"I have no fear lest the woman should encroach upon the power of the man. The fear I have is lest we should invite her unwillingly to trespass upon the delicacy, the purity, the refinement, the elevation of her own nature, which are the present sources of its power." Three years before the century closed another Woman Suffrage Bill was defeated at the second reading, although it was supported by a monster appeal carrying 2,57,796 signatures. There were very few people who in the first decade of our century expected any concession to the women in the foreseeable future. Even Mrs. Pankhurst, the leader of the militant suffragettes right up to the publication of *My Own Story* in 1914 despaired of the success of her battle in her lifetime. She died in 1928.

When the 19th century closed the constitutional suffrage movement had been conducted for sometime by the National Union of Women's Suffrage Societies. The movement was unexciting and pedestrian, and had failed to capture the support of any political party. The militant movement began with the formation in October, 1903, of the Women's Social and Political Union on a non-party basis with Mrs. Emmeline Pankhurst as the leader. Educated in Paris, Emmeline married in 1879 R. M. Pankhurst, a Barrister and Advocate of women's suffrage. By 1903 she had had considerable experience of administration and public life. In 1895 she had been elected to the Manchester Board of Guardians. Three years later she became Registrar of Births, Marriages and Deaths in Manchester. Mother of five children, Mrs. Pankhurst had inexhaustible energy and an uncommon courage of conviction. She had first-hand knowledge of the condition of the poor unprotected mothers and their babies. She became a militant suffragette not out of any academic interest but because she regarded the vote in women's hands "as not only a right but a desperate necessity."

This might partially justify the excesses of the suffragettes. For they let nothing stand in their way. They were determined to make the suffrage question into a live issue so that it might survive the antipathy and indifference of the Press and the Public. This also goes to explain the readiness with which some of the suffragettes courted hardships and sacrifices and faced all consequences. Diverse were the tactics of the suffragettes, some of which resulted in their loss of health

and even death. The tactics included demonstrations in Trafalgar Square and the streets, organising deputations to the House of Commons, and in March, 1912, an extensive window breaking campaign among the Westend stores. Interrupting meeting was a part of their technique. Once Lord Haldane was lecturing on philosophy. Hardly had he begun when a woman asked, "Lord Haldane, when are women to be given the vote?"

The movement assumed a violent character. A bomb was placed in the Home Secretary's Office. Attempts were made to set the residences of ministers on fire. Railway Stations were burnt. A bomb was placed in St. Paul's Cathedral. Houses, race course stands and a church were destroyed. Golf links were damaged and hundreds of orchids destroyed in Kew Gardens. Acid was poured into the letter boxes. Thus arson and destruction of property were added to the methods of the Women's Social and Political Union in 1913-14. The government also retaliated. Large numbers of women were sent to prison. There they went on hunger-strike and were forcibly and revoltingly fed. Some were then released though liable to be arrested again under an Act of 1913, which was popularly dubbed as "The Cat and Mouse Act".

In view of the World War the suffrage cause remained in abeyance between 1914 and 1916. The militant campaign was called off. The war had created an anomaly in the existing register of male voters. Women were playing their part during the war magnificently and heroically. And so, when in 1916 The National Union of Women's Suffrage Societies revived the question of suffrage, it found converts even among members of the Cabinet. A new Government headed by Mr. Lloyd George in 1917 promised votes to women. The Representation of the People's Bill, which became an Act in February, 1918, included Ireland, and conferred complete franchise on all women who were on the local government list, on the wives of all men who were on this list and on all women holding a University degree provided they were thirty years old. The reason given for fixing this age limit was that the number of new voters was the "greatest addition to the electorate that could be handled at one time." The real reason was to reduce the number of women voters to a safe minority so that they might not swamp the legislature! In course of the next few years the apprehension of the new voters organising themselves into a solid "feminine phalanx uniting to defeat men on every major issue" proved to be groundless. Early in March, 1928, Mr. Baldwin announced to a United Franchise Demonstration before a distinguished gathering which included Dame Millicent Fawcett, Mrs. Pankhurst

and Mrs. Eleanor Rathbone that a new Bill to enfranchise women at twenty-one would be introduced in Parliament in course of the next few days. The House of Commons passed the Bill on May 23, 1928.

Thus did the women of England have their political emancipation, and, measures bearing on 'women's question' and creating a revolution in their status multiplied on the statute book. Dame Millicent Fawcett lived long enough to see this political struggle to its end. Before her death in 1929, she wrote, "Having had opportunities of observing manners in the House of Commons, and comparing them over a period of nearly sixty years, I see an enormous, almost an incredible improvement in this respect in recent years. Democracy is a great teacher of manners. Women felt the difference and the improvement almost immediately after February, 1918.

The fight for women's rights has lost much of its interest and sharpness these days, for, there are not many 'diehard' male oppositionists in any part of the world. Even in Turkey which has a long record of female subjection Madame Halide Edib had some of her notable victories as early as the twenties. Doria Shafik and her Daughter of the Nile movement have recently succeeded in overcoming the opposition to the political emancipation of women. In the majority of the Asian States including India, women got their voting rights as a matter of routine. There was little of the dramatic element about it.

In India the demand for women's suffrage was not opposed by the men. On the contrary, it was part of the larger national movement for social justice in which men and women participated. The cause of women's political emancipation found two redoubtable champions in Mrs. Besant and Mrs. Cousins—both foreigners. The first move was undertaken late in 1917 when Mr. E. S. Montagu, the Secretary of State for India, visited this country on a political mission. In a memorandum, submitted to him by a body of women it was suggested that in the new scheme of a broadened and extended franchise, women should be recognised as 'people' without any 'sex' disqualification. Women demanded the same opportunities of representation as men. Indian women had been enjoying municipal franchise almost since the beginning of the century. The Indian National Congress included women members and delegates who had full voting rights.

The Montford reforms did not guarantee voting rights to Indian women. But the reforms did not certainly stand in the way of women getting their franchise. For, they gave statutory authority to the newly elected legislatures to grant suffrage to women. First to take

advantage of this authority was Madras (1921); the last to do it was Bihar (1929). The new opportunity was, however, denied to the overwhelming majority of women because of the restrictive character of the franchise. Very few women had the requisite property qualifications, for Hindu legal system denied to women the right of absolute ownership of property. This explains why between 1921 to 1933, men voters numbered 6.8 million and women voters a little over 3,00,000. However, Indian women presented their case very ably before the Lothian Committee on Franchise (1932). The Committee prescribed lower educational qualifications and wifehood for purposes of women's franchise. Certain seats in the legislatures were exclusively reserved for women. Since Independence there has been a vast change in the status of women. With the introduction of adult franchise, men and women now have the same voting rights. The Constitution has guaranteed equality of rights to all citizens irrespective of sex, religion or race.

It has to be admitted that this guaranteed equality is not reflected either in the composition of the legislatures or in the larger field of public life. It should also be noted that in the last General Election (1951-52) 2.8 million women voters were disqualified (Bihar alone contributing 2 million to this colossal figure) on account of wrong entries. The weakness of the position of women in the political life of the country may also be appreciated from the following figures in connection with the last elections. There were 51 women as against 1,821 male contestants for election to the Lok Sabha. Only 19 were returned. The total number of seats in the State Assemblies is 3,370. Women members number only 82. In the Lok Sabha women constitute less than 4% of the total strength. In the State Assemblies it is only 2.4%. Nonetheless, the majority of voters almost all over India were women. This gap between legal provisions for opportunities and actual social practice is not peculiar to India. It is in existence even in such highly advanced countries like Great Britain and the United States where the average woman is much better educated, politically conscious, and less subjected to traditional orthodoxy and social prejudices. Of the 625 members of British Parliament elected in 1951 only 17 were women being under 3% of the total membership, although British women of all ages exceeded men by about 2 million. Only 4 women have been ministers in Britain. In the first General Election in that country following partial concession to women's demands in 1918, there were 16 women candidates and only one was returned. Between 1919 and 1928 Britain had only 11 women M.P.'s. Even in

THE SPIRIT OF 'YOUNG BENGAL' AND ITS INFLUENCE ON BETHUNE

MANMATHANATH DAS

Bengal, from the time of Raja Rammohan Roy, took the lead in mental revolution towards progress and modernism. This evident spirit, in its due course, influenced those limited number of Englishmen who really felt for the progress of the people and exerted in that direction. John Elliot Drinkwater Bethune has left his fame as a friend of India who championed the cause of female education, a raised voice against many social evils. But it is clear from his, and the papers of his contemporaries that the reformer himself was greatly influenced by a growing consciousness among the people around him. "Here it is impossible to avoid seeing" said Bethune in 1849, "that a great revolution of opinion has been for a long time at work, and will doubtless in another generation, for time is requisite, to bear good fruit."¹ The progressive minds, as Bethune saw, were "sneeringly called" by the conservative class as "Young Bengal" and Bethune felt that "when Young Bengal has grown to Old Bengal the succeeding generation will meet with fewer obstructions than the fathers did, in the way of freeing their mind from debasing superstitions and degrading customs."² During his brief career in India he became a sincere exponent of the cause of Young Bengal, and influenced by as well as influencing them, he joined them in achieving great objects. As would be seen here, in his campaign in favour of female education and remarriage of widows, as also against polygamy and infant marriages, Bethune became a mouthpiece of the Young Bengal and in his turn encouraged them greatly. He warned the Home authorities that "a spirit is awaking among the people which it would be shameful not to encourage."³

Bethune was nominated by the British Prime Minister Lord John Russell and the President of the India Board, Sir John Hobhouse to the office of the Fourth Ordinary or Legislative Member of the Supreme Council of India. He was selected to serve a purpose at that time that was "to cut the Macaulay Code into laws."⁴ While in England Bethune had been "confidentially consulted by the Governments

¹ *European Tract*, 156; Bethune's Correspondence, 1 October, 1849.

² *Ibid.*

³ *Home Misc.*: Vol. 857, Broughton Papers, Bethune to President, 8 August, 1848.

⁴ *Home Misc.*: Vol. 859, B.P., President to Bethune, 7 July, 1848.

Lord Melbourne, and Sir Robert Peel, and Lord John Russel in devising the Acts of Parliament introduced by Ministers on the most important subjects of legislation,"⁵ and therefore, the President selected him to utilise his legislative talent in India. But Bethune does not seem to have been very anxious for an Indian job. He delayed to accept office, and finally agreed to come to India only when he had obtained "the consent of his mother an old lady of 82."⁶

It was just an accident that the Governor General Lord Dalhousie, immediately on Bethune's arrival, selected him to be the President of the Council of Education of Bengal. The office was additional, unpaid, and "very laborious". But when Bethune accepted it "at the request of the Governor General" he thought that he took on himself "to a certain extent, the character of a minister of Public Instruction" "the only compensation for which is to be found in its importance."⁷ From his appointment to this office, till his death, Bethune seriously busied himself with his female school, and did not satisfy the authorities in his works as the Legislative Councillor. Even Lord Dalhousie, who had a soft corner towards Bethune, had to complain later that "He (Bethune) likes schooling better than law-making; and all the Governors General together since Job Charnok will not make him to stick to the latter occupation."⁸

When Bethune took his position in the Council of Education, a movement for the emancipation of the women had already been set on foot by the enlightened class. The new generation to which the system of 'Suttee' appeared to be only a memory of the past, felt the necessity of other reforms, especially of educating their daughters, and before Bethune had thought of their cause, Babu Jaykissen Mookerjee was going to "establish a school for the education of respectable Hindoo girls in Bengali, and to place that school under the superintendence of a native and a European instructress."⁹ There were a few missionary schools in Calcutta to educate the "female children of the poorer classes", but those institutions had never attracted "the daughters of the wealthier members of the community", because of the ultimate motive behind the missionary activities, namely, conversion into Christianity. The endeavour of Babu Jaykissen Mookerjee was, therefore, the beginning of a new movement, which not only drew the attention of Bethune to the subject of female education, but led him to think of a school at his own endeavour at Calcutta.

⁵ *Home Misc*: Vol. 845, B.P., Hobhouse to Tucker, 9 November, 1847.

⁶ Add Mss. 43, 751, *Diary of Lord Broughton*, Vol. 8, 11 November, 1847.

⁷ *Vide India Home Consultations*, 187/Vol. 36, Bethune's Minute, 10 June, 1851.

⁸ Add. Mss. 36, 477; Dalhousie to Hobhouse, 23 October, 1850.

⁹ *News in Provakar*, 11 March, reproduced in *Allien's Indian Mail*, 2 May, 1848.

Bethune's success depended on the support of the enlightened class. He had no support from the Government and no financial assistance from the exchequer. The Christian community ridiculed his ideas and the orthodox Hindus offered "bigotted opposition". But it was the Young Bengal which stood solidly behind him. Before the Bethune school had been established, Babu Ram Gopal Ghose, the well known merchant of Calcutta, became, in Bethune's own words, his "principal adviser", and when the school was started, he procured for him his "first pupils".¹⁰ Babu Dakhinaranjan Mookerjee, the Zaminder, promised "the free gift of a site for the school, or five beeghas of land valued at 10,000 rupees, in the native quarter of the town."¹¹ Pandit Madan Mohan Tarkalankar, one of the pandits of the Sanskrit College, not only liked to send his daughters to the school, but agreed to attend it daily to give gratuitous instruction to the children in Bengali, and to compile series of elementary books for their use.

Bethune had the satisfaction to see that inspite of strong opposition he had with him "the sympathies and good wishes of all the educated part of the community with a few exceptions."¹² Outside the metropolis, at Baraset, "some of the most respectable inhabitants" established a school "attended by more than 20 girls, chiefly Brahmanical caste, and what is very remarkable, two of them being already married." When Bethune "offered to bear the expense of building a school house for them" they showed their "earnestness" by declining Bethune's help and trying "to raise a sufficient subscription among themselves." Similar schools were "set on foot at Neeburdhia and Sooksaugar, and of another near Jessore."¹³

To some of the British administrators in India, Bethune's work seemed to be dangerous. Sir John Littler noted, "The scheme of Female Education is doubtless unpopular, and looked upon by the mass, with fear and dread, whether Hindoos and Mohomedans."¹⁴ The Home authorities, that is, the Court of Directors and the Board of Control, undervalued Bethune's work and positively discouraged him. But it was again the spirit of new Bengal which kept him bold and encouraged him to work.

The determination of the "bold little band of reformers" who championed the movement is understood from a "remarkable document", as Bethune called it, sent to him from Baraset. A group

¹⁰ *India Home Consultations*, 187/Vol. 28; *Vide* Bethune's letter, 29 March, 1850.

¹¹ *Ibid.*

¹² *European Tract*, 156, Bethune's Correspondence, 1 October, 1849.

¹³ *India Home Consultations*, 187/Vol. 28; *Vide* Bethune's letter, 29 March, 1850.

¹⁴ *India Home Consultations*, 187/Vol. 28, Minute by Littler, 2 April, 1850.

of people belonging to the Young Bengal, Babu Gangahari Ghoshal, Kally Krishna Mitter, Nabin Chandra Mitter, Jogeshwar Ghose, Peary Charan Sirkar, Kali Prasad Banerjee, Kaduonmitter Mookerjee, Girish Chandra Gupta and Doorga Charan Chatterjee, made the following Declaration. "Since it is one of the most important duties of man to seek to promote the welfare of the Society in which he lives, and since nothing appears to be so well calculated to attain this end as imparting instruction to all its members, we, the undersigned, take upon ourselves the task of educating the female children of this district. If, for this, we are persecuted in the greatest degree, such as being excommunicated from Hindu Society, we will not, on any account, desist from our endeavours to advance the cause."¹⁵

Bethune felt so much encouraged to receive this 'Declaration' that he sent a copy of it straight to the President of the India Board, Sir John Hobhouse, who, by then had been greatly displeased with Bethune. Hobhouse had written to Dalhousie about Bethune thus: "He has much disappointed me; and gives as much vexation by what he does as by what he omits to do If he was not a well-conditioned, amiable gentleman, I could find it in my heart to send for him home."¹⁶ Thus while Hobhouse thought of his recall, Bethune wrote to him the following with a copy of the above declaration. "I know this declaration to be their own unassisted work; and observe! there is not a Christian among them, or one who would not keep aloof at present from the missionaries. How much better does this declaration deserve it, and can you wonder at my being an enthusiast in this cause, with men such as these to help me on?"¹⁷

This again made the President angry. "Mr. Bethune has written to me two little volumes I am not a little at a loss what to reply, without giving a good deal of annoyance. But I must say something to your Legislator and I shall do so by this mail", informed the President to Lord Dalhousie.¹⁸ The angry President wrecked all hope of Bethune to obtain the name of Queen Victoria for his female school, and taunted him a good deal. "I hope I kiss the rod with as much affectionate reverence as the sensibility of human flesh allows" wrote the disappointed Bethune to the President adding further that "I think you undervalue the importance of the agitation that I have begun on this subject of female education, and the immense assistance that any open declaration of favour from home would give me."¹⁹

¹⁵ *Home Misc*: Vol. 857, B.P., ff. 124-30.

¹⁶ *Home Misc*: 859, B.P., President to Dalhousie, 24 May, 1850.

¹⁷ *Home Misc*: Vol. 857, B.P., Bethune to President, 8 August, 1850.

¹⁸ Dalhousie Papers, Letters from the Board of Control, 5 October, 1850.

¹⁹ *Home Misc*: Vol. 857, B.P., Bethune to President, 23 November, 1850.

But no 'declaration of favour' ever came from home to inspire Bethune.

Bethune, like his illustrious predecessor Macaulay, believed in the efficacy of the Western education in the Indian Society. There was a growing desire in Bengal, and especially at Calcutta, for higher education in Western sciences and literature, and competent authorities on the subject had brought this to the notice of Home authorities. "The demand for education continues to increase..." had written Sir Henry Seton to the President of the India Board in 1846, and had reminded him that "One of the first calls upon your attention will be the Calcutta University, which will, I have no doubt, receive your sanction and support."²⁰

Though the University of Calcutta did not come into existence during the life time of Bethune, yet he was happy to see that a great progress was "being silently effected" through the "four colleges at Calcutta, Hooghly, Krishnaghur and Dacca, with their affiliated schools."²¹ The "most advanced students" of those institutions showed such progressive tendency that it led Bethune to "firmly" believe "that it is through them only that we can expect to produce any marked improvement in the customs and ways of thinking of the inhabitants of India." "...we may, in the course of another generation at farthest", felt Bethune, "have the powerful support of a numerous native party in urging us on to attack and alleviate some of the most prominent social evils of the country."²² As Bethune believed, "The great curse of caste, infant marriages, polygamy, and the enforced celibacy of widows, with all the crimes and abominations that follow in their train, are mainly supported by superstitions which melt away like snow before fire when brought into direct contact with European knowledge: and this work is being gradually but surely done in our Bengal schools and colleges."²³

Bethune was correct in his study of the signs of time. The generation of the redoubtable Ishwar Chandra Vidyasagar, like that of the great Rammohun Roy, agitated against the evils of its own society, and called for the support of the ruling power. But the Government of the Company made it its policy not to touch the society as far as possible.

"I have been repeatedly assured by many most respectable and influential men that a law prohibiting polygamy would be received with

²⁰ *Home Misc*: Vol. 853, Seton to President, 6 September, 1846.

²¹ *India Home Consultations*, 187/Vol. 88, Bethune's Minute, 23 January, 1851.

²² *Ibid.*

²³ *Ibid.*

almost universal contentment and satisfaction,"²⁴ said Bethune. He also saw that the reformers did not fear to speak of infant marriages "as a curse entailed on the country by their laws, and customs, and belief." Of the remarriage of widows, there was a strong feeling in its favour.

Influenced by his supporters, Bethune desired to give them the legal support on behalf of the Government. In his over enthusiasm, he asked straight for the sanction of the supreme authority for India, the President of the Board. He tried to assure the President that "there is a great fermentation of spirits among the natives themselves, such as generally precedes great changes,"²⁵ and so called for his approval.

But none of the English contemporaries of Bethune, either in India or in England, appreciated his motive. To the President, who was "exceedingly disappointed in him", the works of Bethune seemed like "carving out idols for himself to play with and others to laugh at."²⁶

On receipt of Bethune's letter about his proposed laws against polygamy, etc., the President wrote him back in the following words: "I have no doubt that you have found persons, very intelligent, and, so far as you know them, very respectable, who are willing to second your benevolent intentions; and such men may have gone the length of telling you that a law prohibiting polygamy would be received with almost universal contentment and satisfaction. You are doubtless quite right in laying down for a rule, that legislative innovations in social polity on such matters are not to be attempted without strong evidence that the wishes of the people point in that direction—and as you have told me what your maxim is, all I ask of you is, to govern your conduct by it; and not to mistake the concurrence of half a dozen clever, and, perhaps, not over scrupulous, associates, for a general inclination to adopt your views."²⁷ This letter put a fullstop to all Bethune's desire for social laws. The President did not realise that the suggestion for any reform comes not from the vast mass of the people but from a few progressive minds. To him, those progressive few appeared to be only 'half a dozen clever, and, perhaps, not over scrupulous' men, and, therefore, not to be given any recognition. But the spirit of Vidyasagar's time ultimately triumphed over the Government's policy of non-interference. Bethune was dead. All the social

²⁴ *Home Misc*: Vol. 857, B.P., ff. 189-92.

²⁵ *Home Misc*: Vol. 857, B.P., Bethune to President, 23 November, 1850.

²⁶ Dalhousie Papers, *Letters from the Board*, Hobhouse to Dalhousie, 6 December, 1850.

²⁷ *Home Misc*: Vol. 860, B.P., President to Bethune, 20 January, 1851.

evils of his list could not be cured. But at least one, the forced celibacy of the widows, was put to an end. On the 17th of November, 1855, the Bill for the "remarriage of Hindoo widows" was introduced by Mr. Grant and seconded by Sir James Colville, and was passed on the 25 July, 1856.

"It is interesting to see how the President and the Governor General both enjoyed a joke between themselves at the cost of Bethune. Hobhouse wrote to Dalhousie, "I have written to Bethune telling him he must, positively, not abolish polygamy, at the same time presuming that there is nothing to prevent gentlemen from confining themselves to one wife at a time if they choose it. He talks of ferment and agitations and such matters as well alarm me if I placed implicit reliance on his knowledge of facts." ²⁸

Dalhousie replied, "What you say about Bethune and his abolition of polygamy is written seriously, but it reads so like a joke that I am not quite sure whether he has really brooked (?) any such question to you or whether you use it only as an illustration. He has not said a word to me about it. If he proposes anything of the sort of course I should veto at once. What have we got to do with prohibiting Polygamy? We might as well interdict circumcision." ²⁹

To this the President wrote again, "Your letter of March 22 throws some doubt over Mr. Bethune's serious notice of the growing unpopularity of polygamy. I can assure you that, so far as words indicate meaning, your Legislative Councillor must be concluded to have written in sober sadness. But I am glad he has confined his joke, if joke it be, to me." ³⁰

It may be remembered here that Bethune could not intimate his ideas about polygamy, etc., to Dalhousie before he had asked for the President's approval privately because of the Governor General's absence at that time from the capital. Lord Dalhousie who joined Hobhouse to ridicule the idea of abolishing polygamy, could not but himself be influenced very shortly in favour of widow marriage.

What might have been Bethune's further activities to promote the cause of Bengal's reformers had he lived longer, cannot be said. His death was too sudden, and when, as Dalhousie put it, he "was everyday becoming more valuable and useful." ³¹ "Few men have ever been subjected to greater unpopularity by the part they have taken in public affairs, and few have ever collected around them a larger band of friends

²⁸ Dalhousie Papers, *Letters from the Board*, 24 January, 1851.

²⁹ Add. Mss. 36, 477. Dalhousie to Hobhouse, 22 March, 1851.

³⁰ Dalhousie Papers, *Letters from the Board*, 7 May, 1851.

³¹ Dalhousie Papers, *Letters to the Presidency*, Vol. II, Dalhousie to Littler,

and admirers",³² was a comment on Bethune after his death. He was unpopular with his own countrymen in India; and his 'band of friends and admirers' were the intelligentsia of Bengal.

It is surprising to note that what the 'Young Bengal' of pre-Mutiny India thought about such social evils as polygamy, have demanded the close attention of the National Government after a hundred years. As in case of all social reformers, Vidyasagar was far advanced of his own age among his own countrymen, and so also was Drinkwater Bethune among his British contemporaries in India in ideas and thought.

³² Friend of India, 21 August, 1851.

ORIGIN OF THE KOREAN WAR AND INDIA'S STAND ON KOREA

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I

It has been the generally accepted view in the West that the war in Korea on 25 June, 1950, was precipitated by a Communist aggression. The Government of India committed themselves on the side of the Western nations by giving full moral support in the most crucial conflict in the Cold War without fully apprising themselves of the facts of the situation. In the official Communiqué on 29 June, 1950, the Government of India made it clear that they supported the Security Council resolutions because they thought that North Korea had resorted to 'aggression'. But the procedure of calling a country an aggressor without allowing the accused party to have its say in the matter is absolutely unjustified, and was inconsistent with India's proclaimed policy of detachment in the Cold War. In a speech in Madras on 13 January, 1955,¹ Mr. Krishna Menon asserted that "no country could be condemned without its presence in any International body since they had to hear the views of both sides". But in June, 1950, when the Korean war broke out India joined the Western Powers to debar the North Koreans from the opportunity of a hearing—while the South Koreans were allowed to present their case in the Security Council.

India's association with the Western nations in condemning the North Koreans *in absentia*, though widely resented within India, has been responsible for convincing large sections of responsible opinion in the West specially in the Commonwealth about the North Korean guilt of aggression. Also much capital has been made of this by the American publicists to justify the precipitate U.S. military intervention in Korea. Mr. Chester Bowles writes,² "When the United States first asked the United Nations to take a collective action against the aggression of North Korea, the Indian Cabinet voted to support the American proposal . . . For the Americans who take these facts for granted, the immense significance of a firm stand by the Indian Government at that time is hard to appreciate. Throughout India and Asia the Communists have moved heaven and earth to prove that South Korean troops attacked first. Although they have managed to create

¹ *The Hindu*.

² Ambassador's Report, pp. 238-39.

considerable confusion, they have failed in their major objective. In my opinion this is largely attributable to the eye-witness report of the Indian representative and the clear-cut position of the Indian Government on the question of who was the aggressor in June, 1950. Without these statements, which were accepted by the majority of Asians as authoritative and impartial, the unpopularity of Syngman Rhee's regime in Asia and the repugnant prospect of white Western soldiers again fighting Asians on Asian soil might have led millions of Asians to believe the preposterous Communist claim that South Korea had started the war."

Mr. Bowles added that "In the judgment of the veteran *New York Times* reporter in India, Robert Trumbull, these acts represented 'a courageous decision in the context of the delicate state of Indian public opinion.' He reported that Nehru had "risked offending a large section of the Indian public that is ultra-sensitive on the East-West question'."

A well-known British observer of Indian affairs, Lord Birdwood, writes in his book³ on the question of India's support to the Security Council resolutions of June 25 and June 27, 1950: "Late in June, 1950, after four days of hesitation, India accepted the two United Nations resolutions by which action was taken to halt aggression in Korea. The acceptance was the more welcome because it had been wisely made after the receipt of a report from Mr. C. Kondapi, the Indian delegate on the United Nations Commission on Korea, whose sympathies were known to be by no means with the South Korean administration. The Indian attitude was therefore governed solely by the firm conviction that the North Koreans had committed an act of aggression and Nehru felt that the weight of his country's moral conviction should be lent to the cause of the United Nations."

In the context of the above statements, it is pertinent to enquire what was the exact content of the report sent by Mr. C. Kondapi about the origin of the Korean war. Even without having the opportunity of going through this official report, we would safely presume that this report was more or less in line with the report of the U.N. Commission as a whole, since the annual report of the U.N. Commission on Korea submitted to the General Assembly on 4 September, 1950, under the signature of the other Indian delegate in the U.N. Commission on Korea, Dr. Anup Singh, represented a common verdict of the members of the Commission without any reservation or note of dissent.

³ *A Continent Decides*, p. 202.

In spite of assertions to the contrary, it remains an unchallengeable fact that the U.N. Commission on Korea had no eye-witness account to rely upon, when the war started at the 38th Parallel at dawn on 25 June, 1950, with charges and counter-charges about aggression alleged by North Korea as well as South Korea, the U.N. Field Observers—of Australian nationality—having left the Parallel on 23 June, two days before the war started. In fact, the conduct of the U.N. Commission on Korea (1949-50) as a whole was most unbecoming, and the Indian delegates on the Commission should share the blame along with other members. While admitting that the tension between the two Korean regimes continued unabated in the form of border incidents and guerrilla warfare, appointing Field Observers for a correct appraisal of the military situation bordering on the 38th Parallel and also noting the intransigence of Syngman Rhee about the peaceful unification of Korea—together with his frequent outbursts about unifying Korea by force—the U.N.C.O.K. (1949-50) comes to the curious conclusion that the North Koreans made an unprovoked aggression of South Korea—without having any first-hand knowledge of the situation at the 38th Parallel on 25 June, 1950. An attempt is being made here to represent the facts, which might provide a definite clue to the exact circumstances of the origin of the war in Korea on 25 June, 1950.

II

A STUDY OF FACTS RELATING TO THE ORIGIN OF THE KOREAN WAR—25 JUNE, 1950

The Times, 26 JUNE, 1950

“Seoul, Monday, 4 A.M.

“Northern forces are reported by American experts to have captured all territory west of Kinchin (Imjin) river, the only barrier covering Seoul.”

The Manchester Guardian, 26 JUNE, 1950

“Seoul, 25 June, 1950.

“North Korean troops tonight crossed the river Imjin, the last natural barrier before Seoul, the Southern capital, 35 miles to the South-East.

“The Southerners fell back to the Imjin earlier today when the invaders overran the territory to the west of it—Ongjin peninsula.

Apart from Ongjin itself, the largest town captured by the North Korean forces is Kaesung, a railway junction just south of the frontier along the 38th parallel."

The Daily Telegraph, 26 JUNE, 1950

"Seoul, South Korea, Monday.

"The Communist People's Republic in North Korea launched an attack at dawn yesterday on the Republic of Korea, which comprises the South half of the country.

"The invasion followed charges by the Northern Radio Station at Pyongyang that South Koreans had attacked at three places along the 38th Parallel.

"The Communists soon captured all the area north-west of Imjin river, the only natural barrier covering Seoul, the Southern capital."

From the above reports it would appear that the North Korean army invaded South Korea on June 25, 1950, at some unspecified time, and captured the towns of Ongjin and Kaesung as well as all territory in South Korea west or north-west of the Imjin river. These reports seem to verify the statements of the South Korean Foreign Minister and the U.S. Ambassador to the Republic of Korea made to the U.N. Commission on June 25, 1950.

But this is but one side of the picture. What is the other side? According to U.N. Commission on Korea Report (1950), a radio broadcast from Pyongyang at 1.20 p.m. on June 25, 1950, claimed that South Korea having rejected every Northern proposal for peaceful unification crowned its iniquity by launching an invasion force across the Parallel in the section of Haeju, thus precipitating North Korean counter-attack.

The North Korean claim made at 1.20 p.m. on June 25, 1950, about the South Korean attack on Haeju seems to be firmly corroborated by the following messages published by the British Press:

The Manchester Guardian, JUNE 26, 1950

"Seoul, June 25.

"The American officials confirmed that the South Korean troops had captured Haeju, five miles inside North Korea, near the West coast."

The Daily Herald, JUNE 26, 1950

"Seoul, June 25.

"American military observers said the Southern forces made a successful relieving counter-attack near the west coast, penetrated five miles into the Northern territory and seized the town of Haeju."

The News Chronicle, JUNE 26, 1950

"Seoul, Monday, 4 a.m.

"The South Korean Government claims to have counter-attacked at one point on the border and to have captured Haeju, manufacturing town five miles inside North Korea."

From the British newspaper reports given above, it would appear that *Haeju*, a North Korean manufacturing town, five miles above the 38th Parallel was captured by South Korean troops on June 25, 1950, as alleged by the North Korean broadcast at 1.20 p.m. and noted by the Commission. The U.N. Commission did not care to verify the allegation made by the North Koreans about the attack on Haeju by the Southern forces and just brushed it aside as mere falsehood on the strength of President Rhee's assertion to the contrary. This fact of capture of Haeju on June 25, 1950, on the very day of the outbreak of war by Syngman Rhee's army, cannot, however, be obliterated if we are interested in an objective investigation about the origin of war in Korea.

According to the *Columbia-Lippincott Gazetteer of the World* (page 972), *Haeju* is one of the seven major centres in North Korea, and a look at the map of Korea would convince anybody that *Haeju* is the only major centre in North Korea adjacent to the 38th Parallel, other major centres, viz., Pyongyang, Wonsan, Hamhung, Chongjin, Sinuiju and Chinnampo being far above the Parallel. According to the above gazetteer, the population of *Haeju* was above 82,000 on the basis of the 1944 census (*ibid.*, p. 743). *Haeju* was the capital of Korea until 1392 A.D. and is now the capital of Hwanghae Province. The town of *Haeju* is rectangular in shape and is surrounded by a defensive wall [Lautensach: *Korea* (1945), p. 272]. *Haeju* is a commercial centre for gold-mining and agricultural area. It is an important centre of ginseng (a herb widely used in Chinese medicine) production. *Haeju* is also a manufacturing town with cement, gold-refining, heavy chemicals, iron industry and electric power plants.

A more significant point about Haeju, the town captured by the South Koreans on the very day of the start of the war, is the fact that *Haeju is the only railway junction just above the 38th Parallel, leading directly to Pyongyang, the capital of North Korea—65 miles away—by the shortest route available. Haeju is also linked to Pyongyang by a motor road.* (The map prepared by the U.S. Information Service in the U.K. shows only the motor road between Haeju and Pyongyang, omitting the railway link, though the U.S. Army map of Korea as well as other standard atlases show Haeju as a railway junction linked to Pyongyang.)

A close study of the map of Korea would convince us that *Haeju was the most important centre of population in North Korea adjacent to the 38th Parallel, as also it was the key strategic area from the point of view of an armed assault from South Korea with a view to capturing Pyongyang by the shortest and most convenient route.* It would be quite logical to assume that both the North and the South Korean armies must be aware of the strategic importance of the town of Haeju in any North-South Civil war. Especially from the point of view of the North Koreans, the town of Haeju, which provides a railway as well as a road link from the South to their capital Pyongyang only 65 miles away, must have been the key centre in their defence strategy for the security of their capital city. So an assault on Haeju town on June 25, 1950, might reasonably be regarded by the North Koreans as an attempt by Syngman Rhee to fulfil his oft-repeated proclamation about capturing Pyongyang within three days, especially as it occurred immediately after Rhee had a personal assurance from Mr. J. F. Dulles the week before about American backing for South Korea. ("South Korea would never be alone so long as it continued to play a worthy part in the fight for human freedom. The Republic which confronted the menace of Soviet Communism across its boundary had proved that the task was not hopeless." J. F. Dulles, 19 June, 1950 :—*Times*, 20 June). In fact, the American authorities had previously tried to put a curb on Syngman Rhee by restricting the supply of munitions to three days' requirements only, as also threatening the withdrawal of all U.S. aid, both military and economic, in the case of launching an attack from South Korea. In that context, Mr. Dulles' speech might appear extremely provocative, showing the green light to South Korea to go ahead with a full-scale invasion.

We may mention another point which seems to corroborate the North Korean version of the origin of the Korean war. The capture of the town of Haeju by the South Korean army must have needed a very large concentration of their forces, especially when they had no

tanks or armoured vehicles, heavy artillery or air support, which the North Koreans had. Such a heavy concentration of forces by the South Korean army on 25 June, 1950, would be physically impossible—after the alleged North Korean offensive all along the Parallel—especially between Ongjin and Kaesong, and enveloping within the evening of 25 June, 1950, all the territory west or north-west of Imjin river, the location of Haeju being midway between Ongjin and Kaesung. The only way that the capture of Haeju on 25 June, 1950, by the South Korean forces could be explained from the military point of view seems to be the acceptance of the correctness of the North Korean allegation about the prior attack on Haeju by South Korean forces, before the North Korean counter-offensive all along the Parallel began. We do not wonder that a Chatham House Study Group publication, *viz.*, “Defence in the Cold War” had to admit that “Material essential to the refutation of the Communist charge that they, the North Koreans, were defending themselves against aggression is still not available” (p. 110).

It is very difficult to explain in military terms the capture of the most strategic town of North Korea adjacent to a turbulent border by the lightly-armed South Korean forces, unless they could have taken advantage of some element of surprise.

The large concentration of the Southern forces deployed in the surprise offensive on Haeju, the key town on to Pyongyang on 25 June, 1950, must have weakened the defence potential of the South Koreans on the other sectors of the 38th Parallel against a better-armed North Korean counter-offensive.

A critique of U. N. Field Observers' Report

We know the verdict of the U.N. Commission on Korea condemning the North Korean for an unprovoked invasion on South Korea was given without having any first-hand knowledge of the situation at the 38th Parallel, their military observers having left the border on 23 June—two days before the beginning of the war. The decision of the U.N.C.O.K. that the “North Korean regime is carrying out well-planned, concerted and full-scale invasion of South Korea” was based on simply “the actual progress of operations” and the negative evidence obtained from the U.N. Field Observers that “the South Korean forces were deployed on wholly defensive basis in all sectors of the Parallel” (S/1507). But this version of the origin of the Korean war, completely fails to explain the circumstances as to how the unprepared South Korean army, ‘deployed on wholly defensive

basis' and withdrawing at the first impact of the Northern invasion to defensive positions, and having their principal defence line along the Imjin river already pierced by the evening of 25 June, 1950, could rally a large concentration of force that would be necessary to capture Haeju—the most strategic point in North Korea near the 38th Parallel on that very date.

The U.N. Field Observers' Report (S-1518) is still quoted as the basic document relating to the origin of the Korean war. This document was placed before the Security Council on 30 June, 1950, by the then Chairman of the Security Council, Sir B. N. Rau, who commented: "*I think this report is very important, as it bears upon what I may call the very foundation of the action which the Security Council has taken in this matter.*" Most of the commentators of the West including the British White Paper on Korea, Mr. R. G. Casey in "*Friends and Neighbours*" (1954), and Mr. Guy Wint in "*What Happened in Korea*" (1954), based their judgment on the origin of the Korean war mainly on this document. The U.N.C.O.K. stresses upon the point that "*The report of the Observers was completed on June 24, 1950, the eve of the invasion from the North*", and that "*The events of the following day conferred upon the observations regarding the defensive positions of the South Korean forces a significance of which the Observers when they drafted their report could not have been aware.*" The U.N.C.O.K. said, "*This very unawareness gives to their observations a special value which the Commission has taken into consideration,*" and concluded mainly on the basis of this report and of its knowledge of the general military situation that "*No offensive could possibly have been launched across the Parallel by the Republic of Korea on June 25, 1950.*"

It is interesting to note about this very important document that, though presented as being "*completed on 24 June, 1950, the eve of the invasion from the North*", the U.N. Commission itself had not seen the report before 26 June, 1950, and then the report (which is a brief document in itself), could only be "*briefly explained*" to the U.N.C.O.K. on 26 June, 1950—a few hours after the Security Council had passed the first resolution condemning North Korea on 25 June, 1950. This report was placed for further consideration by the U.N.C.O.K. on 29 June, 1950. This so-called basic document about the origin of the war, was unduly delayed for inadequate and unconvincing reasons, and reached the Security Council not before 29 June, 1950. Not only that the time of drafting of this document is suspect, its contents have been contradicted on major points by General MacArthur speaking before the Senate Hearing Committee in May, 1951 as well as by General

Willoughby, MacArthur's Chief of Intelligence in Tokio writing in the *Cosmopolitan* magazine, December 1951. ("The entire South Korean Army had been alerted for weeks and was in position along the 38th Parallel.")

According to the U.N. Field Observers' Report, "Para. 1. *The South Korean Army in all sectors is disposed in depth . . .* Para. 5 *The South Korean Army does not appear to be in possession of military or other supply that would indicate preparation for a large-scale attack. In particular, there is no sign of any dumping of supplies or ammunition, petrol, oil, lubricants in forward areas.*"

This report and the conclusion reached by the U.N.C.O.K. mainly on its basis that "No offensive could possibly have been launched across the Parallel by the Republic of Korea on June 25, 1950," is definitely contradicted by the very fact of capture of the Haeju Town in North Korea on 25 June, 1950.

General MacArthur, though he had previously joined with the U.N. Commission in explaining the defeat of the South Koreans in their unpreparedness before a full-scale attack in the first report to the Security Council as the head of the Unified Command, provided a more plausible explanation for the military debacle which met the South Koreans, by the "logistic mistakes of the South Koreans" in his evidence before the Joint Committee of the Senate on 5 May, 1951. General MacArthur said: "The South Koreans were no match for them (North Koreans) at all; and the disposition of the South Koreans of their logistic potential was extraordinarily poor. *They had put their supplies and equipments close to the 38th Parallel. They had not developed any positions in depth. Everything between the 38th Parallel and Seoul was their area of depot. When they lost the immediate line, they lost their supplies. They were not able apparently to destroy them in mass; so that at one initial stroke this North Korean Army had a new supply base in the area between the 38th Parallel and Seoul, which enabled them to press South with the full strength of their base being immediately behind them. They no longer had to rely on the long distance from the Yalu to get their supplies down.*"

Gen. MacArthur's statement not only repudiated the substance of the U.N. Field Observers' Report, but also provided a very plausible explanation for the rapid advance of the North Korean Army down the Parallel since the day of the start of the civil war—which seemed to many people including Mr. Nehru "without even a great enquiry that this was a well-planned and large-scale invasion" (Nehru's statement 7 July, 1950), and which was put forward by the U.N.

Commission as proof of "a long-premeditated, well-prepared and well-timed invasion".

We might add that Gen. MacArthur, speaking before the Joint Senate Committee had no vested interest to give anything but his well-considered opinion on the subject. He would not be suffering from any disrepute for the initial debacle of the South Koreans as South Korea was not within his jurisdiction when the war started—though he maintained a Reportorial Unit in South Korea for his own benefit, due to proximity of the country from his Headquarters. He might bluff the Security Council by a lie but would have faced perjury charges if he had stated glaring untruth before the Senate Committee.

The People (a weekly Odhams Press Publication in London) rightly challenged the authenticity of the U.N. Field Observers' Report on 2 July, 1950, "The official report on how it all began by 'Field Observers' of the United Nations is quite the woolliest document that has ever been produced on a vital international issue, since it certainly does not prove that the North began it all."

III

NEED FOR AN ENQUIRY BY A NEUTRAL COMMISSION

Lord Birdwood trying to make a balanced analysis of the various gestures made by Indian diplomacy on the Korean issue, made the following suggestive comments;¹ "When we have finished weighing the justice of Nehru's broad indictment that Western Powers take decisions affecting vast areas of Asia without understanding the needs and minds of the people, we are still left with a grave contradiction, which requires to be explained. That is the simple fact that while acknowledging the evil intent and nature of North Korean aggression, it does not ever seemed to have occurred to Sir Benegal Rao to question the Soviet denial of North Korean guilt. Some will call this diplomacy, an inevitable evasion through the force of relentless circumstances. Others may crudely regard it as dishonesty. Whatever the verdict, the challenge was never made by the one power in the world which might have forced the issue into the daylight of open discussion and international exposure. Would not that have represented a service worthy of highest statesmanship, even though the immediate results might have been to create yet greater tension?" Rather than throw a challenge on an issue of doubtful fact, I think India could render a

¹ *A Continent Decides*, pp. 204-5.

useful service, in her role as Chairman of a duly constituted Neutral Investigation Commission by probing into the course of the Korean Crisis, bringing into light the various cross-currents of Big Power diplomacy including those of their satellites which resulted in the calamity of Korea. It should be clear by now, that the real history of the Korean War remains hidden still, in spite of the patent fact of the North Korean invasion. We have already seen "Material essential to the refutation of the Communist charge that the North Koreans were defending themselves against aggression is still not available" (*Defence in the Cold War*, p. 110). We are not sure whether the Korean War was merely a 'civil war' (G. D. H. Cole), or an example of Soviet armed "aggression by proxy" (*The Economist*), or Truman's revelation that "Communism has passed beyond the use of subversion to conquer independent nations, and will now use armed invasion and war." On the contrary, whether the Korean War was the result of the pressure of the China lobby in U.S.A. to find an excuse for the control over Formosa to keep it as a base for future operations against the mainland of China (Sir John Pratt),—or the desire of the American armament rackets to secure a plan for an unprecedented armament race to stave off the nightmare of depression, or it was just a plot of Syngman Rhee, the discredited politician of South Korea who was at the point of being shorn of real powers, if not losing his presidency—as a result of the Assembly elections landslide on 6 June, 1950—nobody can say categorically. ("Dr. Rhee's party retained only 22 of 210 seats, and control of the Assembly passed to a confused mishmash of middle and independent groups" J. Gunther: *The Riddle of MacArthur*, p. 172).

"One member of the American E.C.A. Mission in Korea, by name Stanley Earl, resigned as Labour adviser in 1950, saying that 'the American Mission in Korea should have been investigated by Congress in order to expose the weakness of American policy there', and that 'the oppressed South Koreans would have rebelled against the Rhee Government' had not the war broken out"—J. Gunther—p. 172.

Up till now there is no proof available about Russian instigation in starting the Korean War (Max Beloff: *Soviet Policy in the Far East*, p. 255) in spite of such comments by an objective student of U.N. Affairs: "The Soviet Government showed the green light to the North Koreans" (MacLaurin: *United Nations and Power Politics*, p. 219). "It has been seen that there are a number of important events for which 'direct' Soviet responsibility cannot be proved—among them the outbreak of the Korean War"—Max Beloff. The Chinese

Government did not seem to have any premonition about the North Korean attack (Fitzgerald: *Revolution in China*, p. 220). Whether, again, the American incursion in Korea was a result of moral considerations (Morgenthau) or strategic reasons pure and simple—should be a matter of thorough investigation. The whole conduct of the war including the issues such as blind bombing of centres of population, use of hideous weapons such as napalm, the Chinese intervention, allegations of germ warfare, treatment of prisoners of war, should come under the purview of the proposed Neutral Investigation Commission. Other problems connected with the development of democratic institutions in Korea, no less than the careers of Syngman Rhee and Kim II Sung—the heads of divided Koreas, and the last but not least, the activities of the U.N. Commissions on Korea should be under close examination. All these investigations, properly conducted under an Indian Chairman whose personal integrity could not be questioned by any of the Super-Powers, might throw revealing light into the cause of international tensions—without being used by any of the parties as sensational exposures of the half-truths to further the cause of the Cold War. In the book—*The Hidden History of the Korean War*—(p. XVI) the most exhaustive study as yet available about the origin and conduct of the Korean War, Mr. J. F. Stone writes, “I do not think that the truth—in this as in all wars—is to be found in the simplistic propaganda of either side. I believe that in Korea the Big Powers were the victim, among other things, of headstrong satellites itching for a show-down which Washington, Moscow and Peking had long anticipated but were alike anxious to avoid. There is a certain parallel with Sarajevo, though the parallel is fortunately still incomplete.” A thorough case-study of the Korean Crisis, though a post-mortem examination, might be of immense help in diagnosing the disease of the Cold War and relieve tension through the dissemination of the truth—which is one of the first casualties of war, hot as well as cold.

ANTIQUITY OF THE NYAYA SUTRA

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(2)

No wonder that Caraka should go to the Vaisesika and not to the Nyaya for his definition of the soul!

प्राणापानौ निमेषाद्या जीवनं मनसो गतिः ।

इन्द्रियान्तरसञ्चारः प्रेरणं धारणञ्च यत् ।

देशान्तरगतिः स्वप्ने पञ्चत्वग्रहणं तथा ।

दृष्टस्य दक्षिणेनाक्ष्या सन्ध्येनापगमस्तथा ।

इच्छा द्वेषः सुखं दुःखं प्रयन्तश्चेतना धृतिः ।

बुद्धिः स्मृतिरहङ्कारो लिङ्गानि परमात्मनः ॥

(Caraka, Sarirasthana 32)

That these are not isolated instances of allusion to Nyaya Sutas on the part of the Vaisesika, can be further illustrated by the definition of 'स्मृति' as given in the Nyaya 3.2.44.¹ and the Vaisesika 9.2.6-9. The latter refers to a peculiar connection of the soul and mind and cites 'Samskara' as a second cause. But for understanding the peculiar connection we must turn to the Nyaya Sutra, which is here presupposed, and the word 'Samskara' which is not a very old philosophical term is replaced in the Nyaya Sutra by the word **अभ्यास**, as Vatsyayana points out. Incidentally the usual compression is effected by including with the Samskara many of the terms of Nyaya enumeration. It is this love for logic and brevity that led the Vaisesika to drop the ambiguous word **जाति**, from its list of categories. Gautama uses the word **जाति** in two entirely different senses, in his sutras 1.2.18² and 2.2.66. Although attempts have been made to reconcile the two by supposing that futility arises when there is a surreptitious transition from one kind (**जाति**) to another, it must be confessed that the use of the same term to designate two different things was

¹ प्रणिधान-निवन्धाभ्यास-लिङ्गलक्षणसादृश्य-परिग्रहाश्रयाश्रितसम्बन्धान्तर्गतेविशेषककार्य-विरोधातिशय-प्राप्ति-व्यवधान-सुखदुःखेच्छाद्वेषभयार्थित्व-क्रिया-रागधर्माधर्मनिमित्तेभ्यः । Nyaya Sutra 3.2.44

Cf. (i) आत्मनसोः संयोगविशेषात् संस्काराच्च स्मृतिः । Vaisesika 8. 9.2.6.

(ii) धर्माच्च—V. S. 9.2.9.

² साधर्म्यवैधर्म्याभ्यां प्रत्यवस्थानं जातिः । N. S. 1.2.18.

समानप्रसवात्मिका जातिः । N. S. 2.2.66.

unhappy. Then again, Gautama made a distinction between सामान्य, which he uses in a comprehensive sense and जाति, which had a restricted denotation. The Vaisesika dropped even the word जाति itself except in indirect use in the second sense and consistently held the word सामान्य in the sense of resemblance, both essential and non-essential, as opposed to Viśeṣa to indicate the peculiar quality of things.

There was obviously a methodological motive in simplifying the terminology, although it must be admitted that simplification here tended to obscure the distinction between any, resemblance and fundamental resemblance and philosophy had to go back to Gautama, for the word जाति in its second sense, although the weakening of the dialectic current rendered it unnecessary to carry down the first meaning also.

A similar methodological motive was at work when the Vaisesika replaced the Nyaya enumeration of the sources of knowledge by its own list of the kinds of knowledge. The two classes of प्रत्यक्ष (direct knowledge) and लैङ्गिक (indirect knowledge) afforded a dichotomous division which embraced the fourfold distinction made by the Nyaya and at the same time obviated the use of the ambiguous term 'Anumāna' of the Nyaya Sutra, which might stand indifferently for the means as well as for the result of cognition. The word लैङ्गिक² of 9.2.1 taken along with synonyms of लिङ्ग in 9.2.4. was unequivocally used, whereas the word 'Anumana' might be taken to mean both the source of knowledge and the resulting knowledge itself. An impartial study of Vaisesika Sūtras from 8.1.4 to 9.2.6 can lead to only one conclusion, namely that they had in view the Nyaya theory on the subject of knowledge and its sources. Not only do the Vaisesika Sūtras refrain from giving any definition of प्रत्यक्ष, which is taken for being well known, but they do not refer to certain older forms of proof, which the Nyaya Sūtras refuted. Evidently the Vaisesika accepts the Nyaya refutation as final and confines its attention to a consideration of the sources of knowledge such as are accepted by the Nyaya Sūtras, with a view to further limiting their number.

1 (i) सामान्यं विशेष इति बुद्धिपेक्षम् । V. S. 1.2.3.

(ii) भावोऽनुबुद्धेरिव हेतुत्वात् सामान्यमेव । V. S. 1.2.4.

(iii) द्रव्यत्वं गुणत्वं कर्मत्वं च सामान्यानि विशेषाश्च । V. S. 1.2.5.

(iv) सामान्यविशेषाभावेन च— V. S. 1.2.10, 1.2.14, 1.2.16.

(i) अस्वेदं कार्यं कारणं संयोगि विरोधि समवायि चेति लैङ्गिकम् । V. S. 9.2.1.

(ii) हेतुरपदेशो लिङ्गं प्रमाणं कारणमित्यनर्थान्तरम् । V. S. 9.2.4.

On the contrary, where clear thinking demands an improvement upon Nyaya enumeration is also made by the Vaisesika, thus, the Nyaya admitted distinctly, two kinds of Non-existence (2.2.12.)¹ namely prior and posterior and refers obscurely to a third kind by way of illustration.² The Vaisesika, on the other hand, accepted time as the principle of classification in relation of non-existence and while assigning prior non-existence to the past and posterior non-existence to the future, mentioned two other types of non-existence, namely, mutual non-existence (अन्योन्याभाव)³ and absolute non-existence (अव्यन्ताभाव)⁴, that had relation to a thing in the present.

From the above discussions one conclusion seems irresistible, namely that the Vaisesika system undertook the task of systematising some of the elements of the Nyaya system, of comprising the dialectical and epistemological parts, as not being its primary interest and of elaborating such parts as dealt with the material world. The first two will explain the comparative weakness of the dialectic part in the Vaisesika system, while the last will explain not only the disproportionate length at which the phenomena of the material universe have been explained but also the popularity it enjoyed with the materialists of all times and the physician in particular. The atmosphere is anything but spiritual and we cannot help feeling that we are farther removed from the times of the Upanisads, when the search after spiritual perfection dominated men's thoughts and coloured their philosophy.

We are aware, that by upholding the view that the Nyaya is anterior to the Vaisesika, we are going against a strong body of opinion to the contrary. We now propose to consider, some of the grounds on which the claims of the Vaisesika to be prior, have been founded. Thus it has been urged that Nyaya Sutra 2.1.68⁵ makes a direct reference to 'Ayurveda' and if it is conceded that physical and chemical theories of the latter are derived from the Vaisesika, then we have here a direct proof that the Vaisesika is prior. It is evident that all depends upon the meaning of 'Ayurveda' in this sutra. If it really refers to a system of medicine as that of Caraka, which presupposes Vaisesika elements, then alone

¹ प्रागुत्तरभावीपक्षश्च । N. S. 2.2.12.

² Vide N. S. 2.2.14.

³ सञ्चासत् ।

⁴ पञ्चान्यदसदसदसत् ।

⁵ सन्नायुर्वेदप्रामाण्यवच्च तत् प्रामाण्यमाप्तप्रामाण्यात् । N. S. 2.1.68.

the contention is valid. But where is the proof, that this is the real reference? Does not Caraka himself claim for the science of healing a very ancient origin as old at least as the Atharva Veda itself, and give the following lineage of the teachers of the science in :—

• ब्रह्मणा हि यथा प्रोक्तमायुर्वेदं प्रजापतिः । जगद् निखिलेनादौ अग्निनी तु पुनस्ततः ।

अग्निभ्यां भगवांश्चक्रः प्रतिपेदे ह केवलम् । * * * *

अथ ते शरणं शक्रं ददृशुर्भानुचक्षुषा ऋषिप्रोक्तो भरवाजस्तस्माच्छक्रमुपागमत् ।

तस्यै प्रोवाच भगवानायुर्वेदं शतक्रतुः । ऋषयश्च भरवाजाज्जगद्भुक्तं प्रजाहितम् ।

अथ मेतीपरः पुण्यमायुर्वेदं पुनर्वसुः । शिष्येभ्यो दत्तवान् षड्भ्यः सर्वभूतानुक्मण्या ।

अग्निवेशश्च मेत्यथ जातुकायः पराशरः । हारीतः चारपाण्यश्च जगद्भुक्ते सुनेर्वचः ।

तत्तस्य कर्त्ता प्रथममग्निवेशो यथाभवत् । अग्निवेशकृते तन्ने चरकवतिसंस्कृते ॥

Caraka, Sutrasthana.

वेदो ज्ञातव्यः स्वनायनविकिसङ्गलहोमनियमप्रायश्चित्तोपवासमन्त्रादिपरिग्रहाच्चिकित्सा । प्राह ।

* * * सोऽयमायुर्वेदः शायतो निर्दिश्यतेऽनादित्वात् । * * * * न ज्ञायुर्वेदस्याभूलोचित-
रूपलभ्यते etc. Caraka Sutrasthana, ch. 80.

In the given context, we need not take the word Ayurveda in the sense of any definite system of medical philosophy based on the Vaisesika but simply the science healing which drew its strength as an authority from the visible effects of its prescriptions (Mantra and medicine). If the nature of 'Ayurveda', previous to time of Caraka is to be determined by the contents of the latter, we may, with equal facility prove that this Ayurveda also contained the elements of Nyaya and Sankhya philosophy and of philosophies contradicting these three, for in Caraka who is supposed to continue ancient traditions of philosophy, there is a curious medley of Vaise-ika, Nyaya and Sankhya elements along with a mass of heterogeneous materials.¹ It would be partial and risky to claim for the Vaisesika alone a remote antiquity to the neglect of the Nyaya, which is also represented in the medical tradition which Caraka follows.

Much capital has again been sought to be made out of the alleged silence of the Brahma Sutra regarding the Nyaya, although they criticise at length the Sankhya and Vaisesika views. From this fact the conclusion has been drawn that at the time the Brahma Sutras were composed, the Nyaya Sutras had not probably come into being, but the Vaisesika system was very well known. Our contention is that this is incorrect. The Brahma Sutra refuted such theories as were inconsistent with its own creed or were based on heterodox scriptures, or were self-contradictory. Now, the Nyaya system was least removed from the Vedanta system in respect of its contents. Both

¹ Vide Caraka, Sutrasthana, Vimanasthana, ch. VIII & Sārīrasthana, ch. I.

were theistic in a sense and the Nyaya system was in addition, a science of method, of whose help, the other systems freely availed themselves. In the eye of Vedanta the weakest point in the Nyaya system was its bias towards an atomic theory of the universe. This theory had, however, at the time of the Brahma Sutras, come to be associated more particularly with the Vaishesika system, specially in the form that the combination of atoms was brought about by 'Adṛṣṭa'. It was against this Vaishesika account that the major criticism of the Vedanta was directed. It was not necessary therefore to anticipate this criticism by an examination of the Nyaya doctrine on the subject with equal fulness. But the Brahma Sutras made no secret of its disfavour of such atomistic speculation and in 2.1.3 claimed to have refuted the 'Yoga' system like other systems e.g., Sankhya, that relied upon material elements for the explanation of the universe.

The crux of the whole question, however, turns upon the meaning of the word 'Yoga' in 2.1.3 of the Brabma Sutra. Later commentators have invariably taken it to refer to the system of Patanjali. But there are obvious difficulties in this identification although the psychological motive is easy to explain. It is inconceivable that after opening the criticism of the rival theories concerning the material element of the universe the writer of the sutras should refer to the 'Yoga' system, before closing his somewhat elaborate criticism of Sankhya theory. If it had been his intention to refer to the system of Patanjali¹ he would probably have chosen the close of the criticism of the Sankhya as the proper place for alluding to the similarity of the 'Yoga' therewith, instead of interpolating it in the middle or would more probably have kept silence on the matter as further reference to the 'Yoga' on the matter was unnecessary. It is more probably, therefore, to suppose that here the word 'Yoga' stands for the Nyaya system a meaning vouched for in Vatsyayana's commentary on 1:1.29² and in Kautilya's

¹ Some scholars hold that the reference of 'yoga' found in the Nyaya Sūtras 4.2.38, 42, 46 etc. tells us the priority of the system of Patañjali. It would be easy to prove that the reference of 'yoga' in the Nyaya Sūtra does not give any evidence to be of Patañjali origin, as in the system of Patañjali, there never occurs the mention of the place, where 'yoga' is to be practised, but the Nyaya Sūtra (4 2.42) अरख्यगुहापुलिनादिषु योगाभ्यासोपदेशः must be of Upanisadic origin, as we find in Jabalopanisad 2.10. 'नदीपुलिनगिरिकुहरकन्दरकोटरनिर्भर-स्थण्डिलेषु.....शक्त्यान्परायणः' and in Chandogya 5.10. ये मे अरख्ये अज्ञातप उपासते गुहानिवासा-भ्यस्ये प्रयोजयन्त—ब्रह्मस्यभिव्यक्तिकाराणि योगे etc.

² असद्वत्पद्यते उत्पन्नं निरुध्यत इति योगानाम् ।

enumeration सांख्य योगो लोकायतन्वेति. This tradition of the identity of Nyaya and 'Yoga' travelled down to the time of Hemachandra¹ (and Gunaratna²) where 'Yoga' or 'Yauga' appears as synonym of Nyaya. The true meaning of the sutra seems to be that, by refuting the non-scriptural material elements like Mahat etc., as accepted in the Sankhya the writer was also refuting other so-called non-scriptural elements like atoms as were accepted by the 'Yoga'. It is not unlikely that at the time Sankara wrote his commentary, the word 'Yoga' had lost its earlier meaning in certain academic circles and come to be identified with a philosophy more well known, namely the system of Patanjali.

An objection might be raised that if the Sutra 2.1.3 refers to the Nyaya, then this is a repetition of the same objection as in 1.1.12,³ where the शिष्टपरिग्रह has been supposed by Sankara to include the atomic theory of Nyaya-Vaisesika while Sankara's authority on philosophical allusion deserves all respect, it is a bit hard on the Nyaya to suppose that its tenets were not acceptable to the 'Sistas'. Anvikshiki or Nyaya was an honoured science among the cultured and the respectable from the ancient times and very often occupies the foremost place in enumeration. Reference to it is to be found in Mahabharata, Santiparvan, Ch. 268 Sloka 64: वेदवादं व्यपाश्रित्य मोक्षोऽस्तीति प्रभाषितुम् । अपेतन्यायशास्त्रेण सर्वलोकविगर्हिणा । and in Manu यस्तर्केणानुसन्धत्ते स धर्मं वेद नेतरः । (Atomic theory is also mentioned in the Setaswatara Upanisad 'भूतानि योनिः' etc. 'आदिः स संयोग-निमित्तहेतुः' which disposes effectively of Sankara's contention, that the atomic theory was not accepted by the cultured.⁴ As we have no means of ascertaining that Anvikshiki was at any time dissociated from the atomic theory, which forms an integral part of the Nyaya system

¹ नैयायिकत्वाच्चपादो योगः सांख्यस्तु कापिलः ॥

Martyakanda, sloka 525.

² अथादी नैयायिकानां योगापरभिधानानां लिङ्गादिव्यक्तिरुच्यते । Commentary on Saddarsana Samuccaya by Gunaratna.

³ 'एतेन शिष्टपरिग्रहा अपि व्याख्याताः'.

⁴ N.B. वेद्यः सृजति भूतानि काली भावप्रचोदितः । महाभूतानि पञ्चेति तान्याहुर्भूतचिन्तकाः ।
तेभ्यः सृजति भूतानि काल आत्मप्रचोदितः । एतेभ्यो यः परं ब्रूयादसद् ब्रूयादसंशयम् ।
विद्वि नारद पञ्चेतान् शश्वतानचक्षान् भुवान् । महत्तत्वेजो राशौ कालषष्ठान् ।

स्त्रभावतः ॥

आपद्देवान्तरिक्षं पृथिवीं वायुपावकौ । नासीद्धि परमं तेभ्यो भूतेभ्यो मुक्तसंशयम् ।
मोपपत्त्या न वा युक्त्या त्वसद् ब्रूयादसंशयम् ।

Mahabharata, Santiparvan, ch. 247. These slokas also refer to atomic theory.

now, it would be gratuitous to suppose that the criticism of the atomic theory was not directed against Anvikshiki as such. It would be more logical to suppose that Vādarāyana was referring to certain notorious system of thought, such as 'Lokayata'.

Much reliance has been placed upon the internal evidence of the Nyaya Sutras themselves, regarding the existence of other systems of thought, both congruent and conflicting, thus sutras 1.1.28-29,¹ refer to tenets; that are peculiar to each school, and tenets, that are common to all systems. It has been urged that these sutras can admit of only one interpretation namely that when Gautama composed his book he knew the existence of other systems of which Samana Tantra might possibly refer to Vaishesika, just as Para-Tāntra might refer to Sankhya. We cannot help feeling that the meaning of the word Samana Tantra has been unduly restricted by the interpretation that it refers to the Vaishesika alone. Some light may be cast on the significance of the terms by referring to Caraka (Vimana Sthana).

प्रतितन्त्रसिद्धान्तो नाम तस्मिंस्तस्मिंस्तन्त्रे तत्तत्प्रसिद्धं यथान्यत्राद्यौ रसाः पङ्क्तयः ।
पञ्चेन्द्रियाणि यथान्यत्र पङ्क्तिर्याणि । वातादिकृताः सर्वविकाराः, यथान्यत्र वातादिकृता
भूतादिकृताश्च प्रसिद्धाः ॥

Here Samana Tantra need not be so far different as the Nyaya and Vaishesika ; even among persons professing the same system, a difference may arise on some minor points, which were then regarded as Pratitantra-Siddhanta. In the Nyaya Sutras in order to understand Pratitantra and Samana Tantra, we need not go beyond the Nyaya system itself and postulate the prior existence of the Vaishesika. The Para-Tantra obviously refers to the Sankhya, which we have already accepted as prior to the Nyaya. Besides, it must be remembered that in India philosophical systems did not grow in a single night like 'Jonah's gourd' and were preceded by intense philosophical discussions on the various principles of reality even in Upanisadic times. The congruence and conflict of opinions might very well refer to these philosophical discussions.

Indeed, for the philosophically curious the Nyaya Sutras possess a unique interest. If one were interested in the hunting up of absolute philosophical theories, one must turn to the pages of Nyaya Sutras (and Buddha's dialogues to some extent) for illumination. Here we find ranged a bewildering variety of previous speculations,

¹ सर्वतन्त्राविरुद्धस्तन्त्रेऽधिकृतोऽर्थः सर्वतन्त्रसिद्धान्तः ।

समानतन्त्रसिद्धः परतन्त्रसिद्धः प्रतितन्त्रसिद्धान्तः ॥

which the Nyaya Sutras sought to refute, modify or organise. Possibly in the gifted family of the Angirasas, there were certain philosophic traditions and round about these as nucleus, other materials were gathered according to their congruents. But, there is no doubt that the writer of the sutras, as well versed in the philosophical lore of the time and applied his great genius to build up a system of thought, which because of its well-grounded reasons, has earned for him the cognomen of Akshapada¹—the philosopher endowed with vision even in the legs.

¹ Vide Nyayamanjari :

न्यायोद्धारगभीरनिर्मलगिरा गौरीपतिस्तोषितो
वादे येन किरौटिनेव समरे देवः किराताकृतिः ।
प्राप्नोदारवरस्तवः स जयति ज्ञानाश्रयप्रार्थना-
नाशानिकमर्हर्षि मस्तकवलत्पादोऽक्षपादो मुनिः ॥

STATE FINANCIAL CORPORATIONS— A REVIEW OF THEIR WORKING ✓

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For providing long and medium term credit to Small and Medium sized industries which fall outside the purview of the Central Finance Corporation, the Parliament by the State Finance Corporation Act of 1951, empowered state Governments to set up similar Corporations in their respective States. In order to facilitate financial help to small and medium industries, the definition of the industrial concerns has been widened in the Act so as to include not simply Public limited, but also Private Ltd., Partnership & Proprietary concerns. The Act authorised the State Financial Corporation to carry on and transact any of the following kinds of business, namely :

(a) the guaranteeing on such terms and conditions as may be agreed upon of loans raised by industrial concerns which are repayable within a period not exceeding twenty years and are floated in the public market ;

(b) the underwriting of the issues of stocks, shares, bonds and debentures of industrial concerns ;

(c) the retention as part of its assets, any stocks, shares, bonds or debentures, which it may have to take up in fulfilment of its underwriting liabilities, provided that it disposes of the stocks, shares and bonds so acquired as early as practicable and in any case within a period of seven years from the date of such acquisition ; ✓

(d) the granting of loans or advances to or subscribing to debentures of industrial concerns, repayable within a period not exceeding twenty years from the date on which they are granted or subscribed to as the case may be.*

Accommodation could only be given against tangible assets secured by sufficient pledge, mortgage, hypothecation or assignment. The Corporation have been debarred from accepting deposits except as provided by the act or from subscribing directly to shares or stocks of any company or granting advances on the security of its own shares. The maximum amount to be advanced has been fixed at Rs. 10 lakhs.

* In September, 1955, the industrial and State Financial Corporations (Amendment) Act, 1955 was passed and this enactment empowers the Corporation to extend financial assistance to industries to be newly set up also.

Under this Act, Financial Corporations have so far been established in 10 States, *viz.* Punjab, Bombay, Hyderabad, Saurashtra, Travancore-Cochin, West Bengal, Behar, Assam, Andhra and Rajasthan, and proposals for establishing similar corporations are under consideration in Madhya Bharat, Mysore and Orissa.

REVIEW OF OPERATIONS

It would be too premature to draw any conclusions regarding the functions of the State Corporations from the results of their workings during this short period of existence. Nevertheless a review of the up-to-date working cannot but create a feeling of disappointment about the activities of these corporations. The corporations have not so far been able to give any significant help to the small and medium sized concerns of different states.

Annual reports of the Finance Corporations of the 10 States show that though none of them has actually incurred losses, yet none has been able to give the guaranteed dividend to the Shareholders without state Government subvention. But this altogether would be an unimportant point, if the corporations have actually succeeded in attaining their principal objective, namely assisting the medium and small industries with finance. Viewed in this angle, unfortunately the activities of the corporations are none too encouraging.

Considering the level of industrial development in different states, the size of the requests for loans (for the period 1954-55), *e.g.*, in Bombay or in West Bengal cannot be gauged to be on the high side.

One of the reasons for such small amount of requests being made is the experience gained by industrial concerns in the medium and small sector about the intricacies involved in mortgage banking. But the type of securities insisted upon is the most important cause for such little enthusiasm shown on the part of the borrowers. Small and many of the medium concerns do not possess any tangible assets acceptable to the corporation, which prevented them from approaching the Financial Corporation.

From the table, it is to be found that not only the aggregate value of applications for loans made to individual corporations is small, but there is a visible gap between the total loans applied for and loans actually sanctioned. Out of 514 applications received by the five corporations up to 31st March 1955, only 114 or 22.17% have been finally sanctioned, 130 are pending, 191 applications have been rejected or withdrawn and 78 have been disposed of and referred to other

agencies, such as Small Industries Board, Director of Industries etc.*

The Working of the State Financial Corporations :

—1953-55 and 55-56.

Name and date of Establishment	No. of applications received and the amount requested				No. and amount sanctioned				Applications under investigation or pending for want of information				Applica- tions rejec- tions or with- drawn		Applica- tions dis- posed of		
	(in Lakhs of Rs.) Amount				(in Lakhs of Rs.) Amount												
	No.	53-55	55-56	Rs.	Rs.	53-55	55-56	Rs.	Rs.	53-55	55-56	53-55	55-56	53-55	55-56	53-55	55-56
Travancore-cochin (13.12.53)	37	26	57	37	51	95	21	26a	37	15	23	6	—10	(53-56)	3	(53-56)	...
Hyderabad (13.2.54)	38	23	95	15	31	10	20	9	33	56	4	53	7	11	11	11	...
Bombay (1.12.53)	199	56	290	93	n.a.	31	29	63	37	60	456	66	23	29	11	73—49	
Punjab (1.2.53)	139	56	39	12	70	17	46	33	20	70	39	57	26	17	67	12	...
West Bengal (1.3.54)	101	67	158	0	170	89	6	9	14	50	28	77	18	25	77	51	...
Saurashtra	37	—	62	22			11	16	15	50	28	05	13		7		5

b including 10 applications carried forward from previous year.

a including applications " " " " "

The amount advanced by other four corporations are as follows :

Assam—Rs. 26,41,605 during 1955-56.

Rajasthan—Rs. 1,85,000 (the figure is for a period of 1 year and 2½ months' working).

Bihar—Rs. 3,85,000 (for a period of one year and 5 months' working)

Andhra—Rs. 8,01,878 (the amount of loan advanced by Madras investment Corporation and transferred to Andhra Financial Corporation.)

✓ The reasons for rejection have been on a variety of grounds such as absence of adequate security and scope for further expansion, insufficiency of profit earning capacity to repay the instalments of principal and interest, unsatisfactory financial position, unfavourable credit reports, bad management etc. The most important cause for rejection however has been the unsatisfactory nature of the securities offered.

* There has been a decline in the number of applications received and rejected by 1955-56 different corporations during which is the result of the experience gained in financing industry. On their part, the corporations were able to reduce delays in the disposal of loan applications. The applicant concerned on the other hand seems to have greater appreciation of the terms and conditions on which the corporations grant financial accommodation.

Apart from this, there is not much evidence of improvements in the working of the corporations. The number of loans sanctioned has been lower compared to previous year except in the cases of West Bengal, Saurashtra and Travancore-cochin corporations. This is stated to be due to the accommodation recently offered by the Small Scale Industries Board on attractive terms.

Most of the small and many of the medium sized concerns do not own any land and building which are considered to be the safest type of security by the corporation. Moreover, as majority of the applicants were proprietary or partnership firms, it seemed very difficult to ascertain their financial position exactly.

✓ FINANCIAL CORPORATIONS AND SMALL AND MEDIUM INDUSTRY

Not only the aggregate amount of loan sanctioned is small but Corporations have also failed to achieve the main objective—that is to render financial assistance to those small and medium sized industries which are not getting accommodation from the money market, with medium and long term loans. In actual practice, the corporations so far are able to reach by and large, the type of industrial concerns, which has fixed assets of adequate value to offer as security and which is generally in a position to satisfy the requirements of a financier under a system of mortgage credit in the matter of investigation and marketability of title to the security and which is also able to bear the legal and other charges including the stamp and registration fees payable on the mortgage of property. This limits the field of operation of the Corporation. Thus the corporation have been able so far “to serve those industrial units which fall within the medium group.”¹ From the published reports it is not possible to gauge exactly the types of concerns so far receiving the bulk of accommodation. Informations received from some of the corporations on this point in reply to personal query show that so far, from the point of view of capital invested, medium sized concerns are the major recipients of loans. In the case of the Hyderabad Corporation out of twenty recipients, eleven concerns are in the medium group, (i.e. having capital assets between Rs. 1-15 lakhs receiving Rs. 35,61,000 i.e. 92.33% of the total amount sanctioned up to 31st March 1955. In case of the Saurashtra Financial Corporation, only three out of twenty-seven recipients of financial accommodation, are small concerns. ✓ The amount sanctioned by Saurashtra corporation to this type of concerns accounts for only 4.8% of the total amount sanctioned up to March 1955, and 2.7% during 1955-56. Twenty-three out of seventy concerns so far receiving accommodation from Bombay corporation are smaller sized concerns² accounting for 11.03% of total loan sanctioned. From the point of view

¹ Annual Report of the Punjab Financial Corporation—1954-55.

² Third Annual Report of the Bombay State Financial Corporation—A small scale concern has been defined in the Report as a unit having capital or capital asset up to the value of Rs. 5,00,000 and a medium scale concern as a unit having share capital of fixed assets of the value up to Rs. 20,00,000.

of availing themselves of financial assistance from the corporation. The failure of the smaller sized units to offer sufficient security is also proved by the fact that proportion of rejection to total number applied is the heaviest in the case of proprietary and partnership concerns, who so far formed the majority of the total applicants, during the first-year working of the corporations. ✓

Although the state corporations have been established mainly to render financial assistance for acquiring fixed assets, in course of their functioning it is found that majority of the applications, specially from the smaller concerns are for working capital funds. In fact today the shortage of working capital is as acute (if not more) as that for medium and long term credit and capital. ✓ Medium and long term credit for expansion and modernisation would be of no use to them unless they are at the same time provided with funds for working capital purpose, for which they have not a single source to turn. ✓ West Bengal Financial Corporation in course of its first thirteen months of working received applications for working capital which "far exceeds that for block assets." ✓ In Saurashtra "the general trend of the applications received reveal that most of them are for working capital requirements." ✓ The inclusion of the supply of funds for working capital purposes in their list of operations by subsequently modifying their lending scope, the corporations have recognised this characteristic of financial requirements of small and medium and specially of the former group of industry. The West Bengal Financial Corporation has decided to give loan for working capital also in deserving cases and in fact out of the six concerns receiving financial accommodation from the Corporation up to March, 1955, four have been given funds entirely for working capital purposes, while the other two for both fixed and working capital purposes. ✓ In response to requests, specially from small scale industrialists for loans for working capital, the Board of Governors of the Bombay State Financial Corporation has decided to grant loans for working capital. Generally, if the loan is primarily required for block capital, the element of working capital, would, in special circumstances be provided up to 20% of the total amount applied for. The loans primarily required for working capital would be given to (a) industrial concerns which are of high priority from the point of view of industrial development in the state, (b) an industrial concern which is organised on sound lines and has a promising future, but is working below capacity owing to lack of working capital or (c) a new unit which is unable to get accommodation from commercial banks and requires

assistance for a transitional period.¹ The security against which loans to be advanced would always include the net value of the fixed assets and may also include stocks if necessary. Overlapping of securities with banks however is avoided and if the concern is in a position to obtain supplementary working capital from commercial banks against security of stocks, it is free to do so. Loans and advances are not given in the nature of cash credit arrangements.² In order to enable large number of concerns to avail themselves of this facility, the Board has decided that a loan primarily for working capital to be granted to a single industrial concern should not exceed Rs. 1,50,000.¹ The Hyderabad financial corporation has also advanced funds for working capital in appropriate cases, but only against the security of tangible assets.³

From the point of view of meeting even the long term financial needs of the small and medium sized concerns the activity of the State financial corporations so far is a record of failure. The causes for the meagre amount of assistance rendered so far have been explained already. What is to be appreciated that although the financial requirements can be met with long term and medium term credit, the small and medium industry specially the former one, is not in a position financially to avail themselves of the facility rendered in the form of long term mortgage loan at a rate of interest higher than what they could afford. In order to appraise the financial problems of the smaller sized concerns, the first point to be realised is that small industries are by nature undercapitalised. Financial problem, both with regard to credit and capital centre round the fact that they have initially very small capital base to begin with, which prevents them from taking advantage of the credit facilities provided through the normal channels. "The characteristic lack of fixed assets is near to the heart of the credit problem of small business since lenders often base credits upon 'Bricks and Mortar' security rather than upon dynamic size".³ So any form of assistance in order to be of real benefit to the smaller sized concerns should be partly in the nature of permanent venture capital. Unfortunately the State Finance Corporations have been deferred from subscribing to the share capital of the borrowing concerns which practically rendered these institutions unapproachable to smaller sized concerns. To be

¹ Bombay State financial corporation—Second Annual Report.

² Stated by the Managing Director of the said corporation in a letter dated the 16th Nov. 1955.

³ F. C. Dicks & E. J. Hopkings Private Capital Requirements—Washington 1946—p. 55.

of any practical help, the lending power of the corporation should be widened enough like the Industrial Credit and Finance Corporation of England, whose lending method has not been prescribed before hand, and extends its financial assistance in the form suitable to the borrowing concern. The I.C.F.C. in its actual operation is entirely free to render assistance to small industries and in some cases even unsecured loans have been granted, where the corporation is satisfied that such assistance is justified. A system of giving unsecured loan on long term basis has also been introduced in Indonesia for the assistance of small scale and cottage industries. Under their urgency Programme of 1951-53, a 3 year plan for promoting cottage and small scale industries, Indonesian Government allotted a certain amount to be lent out to small industries for (1) purchasing small machineries, equipment & tools, (2) erecting buildings for production purposes and (3) providing revolving capital for the small units which will be modernised.¹

For meeting the financial requirements of small industries Shroff Committee has suggested for the establishment of special Development corporation which would not be owned either partly or wholly by the Government, but should be provided with an interest free loan of Rs. 10 crores for 15 years. The corporation would undertake the following type of business, namely (1) investment in equity capital of industrial concerns (2) purchase of preference shares and debentures (3) granting of long term loans (4) granting of loans given to small industries by commercial banks (5) underwriting of issues (6) Joint lending with other suitable agencies or with Government for purposes of industrial development in the industrial sector.

But as has been suggested by Dr. S. K. Basu, instead of setting up yet another corporation, the functions of the corporation outlined can be achieved by enlarging and modifying the functions of State Finance Corporation. "If the State Finance Corporations were allowed to subscribe not only to the preference shares, but also to the ordinary shares, in industrial companies and were further given the option to convert their loans into preference shares, there would be no difference between the Finance Corporations and the Development Corporation as conceived by the Shroff Committee." Moreover, by a system of co-ordination of the functions of State Finance Corporation & State aid to industries in the modified form (as laid down by the Central Government) specifying the amount of loan

¹ ECAFE report of the study group of small scale industry experts on their visit to Japan—E-CN. 11-18T-108—February 1955.

applications to be entertained by each the financial problems of small and medium industries can be expected to be met somewhat satisfactorily. Loan applications up to one lakh should be received by the Board of Industries, while applications requiring financial accommodation from one to ten lakhs should be entertained by State Financial corporations. The work of sanctioning loans to small industries can also be entrusted to the State Financial Corporations (as has been done in Bombay) and the Board of Industries would only deal with the applications for financial assistance from cottage industries.¹

¹ In the original circular from the Central Government, it was envisaged that actual disbursement of loans by the Government under Aid to Small Scale Industries Scheme would be made through the State Financial Corporations. But as acting as Agents of the Government involves certain amendment to the State Financial Corporation Act the matter is being taken up by the Central Government. Meanwhile the work of disbursement of loans has also been entrusted to certain other Corporations, e.g. Hyderabad in an informal way.

The initiative for planning a co-ordinated scheme has been taken up by the State Bank of India. A pilot scheme for providing credit to small scale industries at certain centres has recently been drawn up and arrangements are now in progress to work the scheme. With a view to facilitating the work of the various institutional agencies who have no branch organisations, the State Bank of India are arranging for the services of their branch agents being placed at their disposal in the matter of compiling and furnishing opinions and generally assisting such credit agencies in their operational activities in such centres where they are not represented.

A NEW INTERPRETATION OF THE DOCTRINE OF KATHARSIS

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A great writer is best interpreted by himself. It is particularly so with a writer like Aristotle, who wrote on almost every branch of knowledge, and whose writings ran into hundreds. Sir William Osler speaking in McGill University in 1898, said, "It is sad to think that the day of the great polymathic student is at an end; that we may perhaps, never again see a Scaliger, a Haller, or a Humboldt—men who took the whole field of knowledge for their domain and viewed it as from a pinnacle". Dr. T. Case, Waynflete Professor of Moral Philosophy, Oxford, speaks of this integrated approach of Aristotle. He emphasizes how a synoptic view of the whole corpus of Aristotelian writings is first necessary, before there can be any understanding of the Aristotelian position. We have attempted to examine the Aristotelian doctrine of Katharsis against the wider background of Greek philosophy and medicine. It is hoped that the long-standing controversy about the interpretation of this doctrine might at least be resolved, if we look at the problem from the standpoint of Aristotelian philosophy.

I

No book has so deeply influenced the subsequent history of European poetic theory as Aristotle's *Poetics*, and no doctrine had a more chequered career than the doctrine of Katharsis. Egger finds no reference to Aristotle's *Poetics* in Horace, Cicero or Quintilian; and the *Poetics* was entirely lost sight of during the Middle Ages. Its transmission, as Egger points out, was due almost exclusively to the Orientals. Averroes' version of the *Poetics* in the twelfth century stimulated critical thought; and Hermann translated from the Arabic version in the thirteenth century. But Robortelli's critical edition in 1548, first drew attention to the significance of this treatise, and in the very next year, the first Italian translation was given to the world by Bernardo Segni. From that day to this, the editions and translations of the *Poetics* have gone on increasing; and there is hardly a single passage in Aristotle's treatise, which has not been elaborately discussed and commented upon.

It should be clearly recognised that Italy in the Renaissance was a completely different world from Greece in the time of Plato and Aristotle. Modern interpreters of Aristotle have almost all of them entirely depended on the Renaissance interpretation of this Aristotelian doctrine. Robortelli (1548), Vettori (1560) and Castelvetro's (1570) treatises seem to have almost canonical authority for the moderns in the interpretation of this much disputed doctrine. Robortelli writes, "the exercise of terror and commiseration purges the mind of these very passions; for the spectator, seeing things performed which are very similar to the actual facts of life, becomes accustomed to sorrow and pity". Castelvetro also follows this interpretation of Robortelli, though it should be noted that he nowhere attempts to read the doctrine as an integral part of Aristotelian philosophy. Dr. J. E. Spingarn in "History of Literary Criticism in the Renaissance" refers to Minturno's treatment of the doctrine in *Arte Poetica* (Venetia, p. 77). According to this interpretation of the Katharsis, tragedy is a mode of homoeopathic treatment, effecting the cure of one emotion by means of a similar one; and we find Milton in the preface to *Samson Agonistes*, explaining the Katharsis in much the same manner. Milton writes, "for so in physic, things of melancholic hue and quality are used against melancholy, sour against sour, salt to remove salt humours". This passage has been regarded by Twining, Bernays and other modern scholars as a remarkable indication of Milton's scholarship and critical insight. (Butcher, pp. 229-30), but after all, it need hardly be said, he was merely following the interpretation of the Italian commentators on the *Poetics*.

Modern writers on Aristotle's poetics, like Bernays, Bywater, Sandys, Gudemann and Butcher have all followed this Renaissance interpretation of the Aristotelian doctrine of Katharsis. All these eminent critics reject the theory of purification of pity and fear. They look at soul, which is to be purgated, as more important. This is consistent with the main tenets of Aristotelian Philosophy. We should remember that soul in early Aristotelian analysis (as also in the Platonic system) is a "substance". Pity and Fear, and everything affecting ($\pi\alpha\theta\omicron\varsigma$ =pathos) the soul, are all qualities; and by Katharsis of the soul, Aristotle was hinting at the return of the affected soul ($\pi\alpha\theta\eta\mu\epsilon\tau\alpha$, pathemeta *Poetics*, 1449b) to its original "unformed" state. This view of passions as "affections" of the soul is closer to the purgation theory, than to the purification theory of Hermann, Batteux and Susemihl. The purification of pity and fear makes very little sense. In aesthetic experience, we do not enjoy pure pity and pure fear, but something which is very different from both.

It is, as we shall find in Sec. V, the element of reason (λογος, logos) which adds to our sense of æsthetic delight.

Zeller and Gomperz also speak of this "substantial" character of the Greek conception of soul. But Zeller felt that here, there is a conflict between the Renaissance interpretation of Katharsis as homoeopathic and the main trends of Aristotelian Philosophy. Zeller puts the question how it is that while the balance in phenomenal and noumenal world in Pre-Socratic and Aristotelian philosophy, is everywhere to be achieved through the opposites, in the Poetics, Aristotle should have sharply deviated from this standpoint, and formulated a theory, which is entirely his own. But Zeller does not follow up this very pertinent question, and accepts the Renaissance interpretation of the doctrine.

Bernays also subscribes to this purgation theory—purgation of pity by pity, and fear by fear. With great learning and literary skill, Bernays maintained that Katharsis as used in the Poetics, is a medical metaphor; "purgation" denotes a pathological effect on the soul analogous to the effect of medicine on the body. Tragedy excites the emotions of pity and fear—kindred emotions that are in the breasts of all men—and by that act of excitation affords a pleasurable relief. Bernays assumes two things, which he does not attempt to establish. First, can kindred emotions by their excitation be worked off? and secondly, that act of excitation itself affords a pleasurable relief. We shall have to examine both these assumptions against the wider background of Greek thought.

Gomperz who inherited the tradition of Zeller, is also an upholder of the Renaissance interpretation of the doctrine. He distinguishes between two kinds of Katharsis (Greek Thinkers, v.4, p.406). "The second kind consists in a discharge of old, unspent, emotional tensions, which finds its occasion in the contemplation of tragic events". His view of "working off a surplus of energy" or "discharge of old, unspent, emotional tensions." by something similar to it, clearly shows which way his sympathies lie. Sandys in his monumental "History of Classical Scholarship" V.I. p.62, speaking of the Miltonic interpretation of the doctrine, writes, "Milton's interpretation had been anticipated in Italy by Scaino (1578), Galuzzi (1621)" and the exact sense of the term, according to Dr. Sandys, has been discussed by Twining (1789) and by Weil (1847). We have already seen how Twining holds with Bernays that the cure of pity is always by pity, and of fear by fear. Bywater sees in Scaino's treatment of this doctrine, almost the last word said about the interpretation of this much vexed question. We should note however, that all these eminent

scholars, Bernays, Zeller, Bywater, Gomperz, and Sandys uphold the purgation theory; it is the soul which is being katharsised.

II

Zeller's question seems to have been unheeded. How is it that while in Greek philosophy and medicine, balance is always reached between opposites, in the Poetics, Aristotle should have altogether changed his position? Zeller finds no answer to this question. The answer is that Aristotle has not changed his position; and his teachings in the Poetics should be read against the wider background of Greek philosophy and medicine. We discuss first of all the nature of the "substance" in which affections and qualities are rooted. This discussion is of great importance, for soul in Platonic system as also in early Aristotelian analysis, is a "substance". ✓

Anaximander of Miletus said that the primary substance was not any one of the Four elements, but "some different kind of substance", which he called the "apeiron", the non-limited. The Non-limited was neutral in qualities (Diels. A.1, A.9, A.16). This concept, unlike Thales' choice of a Substrate, seems to have been arrived at logically; for though the Non-limited was material and therefore perceptible, it was removed from our perception by being out of reach. There seems to have been two views in which substance (for soul is a substance) could disappear. The one way would be by making it non-limited. In the Protrepticus and Metaphysics, Aristotle seems to hold the Platonic view of soul as substance. In this view, substance could only disappear, if it is uninformed. But though there is this difference in attitude towards substance in Anaximander and Aristotle, there is this disappearance all the same. It should be clearly recognised that Aristotle in the Poetics, is thinking of the disappearance of the "uninformed" substantial soul, and not of the disappearance of it by making it non-limited. In the Eudemus, Aristotle refers to the proposition of Phaedo, that substance admits no "more or less". In Plato's view, a "more or less", a variation of degree, can occur only in the indeterminate (απειρον apeiron), never in anything absolutely determined. The Platonic view of soul as substance is clearly present in early Aristotle in the Protrepticus. Jaeger in "Aristotle" (O.U.P.) and Ross in "Parva Naturalia" (O.U.P.) have discussed the evolution of the concept of soul in Aristotle. Gilbert Murray places Poetics round about 330 B.C. (Preface to Bywater's ed. of Poetics). Aristotle had not yet developed the entelechy view of soul, so prominent in his later biological treatises (De Gen. 738b 27).

It is very important to remember this concept of soul in early Aristotle in any discussion of the doctrine of Katharsis. Qualities and affections are always rooted in a material substrate. Hot and cold, sweet and bitter are all qualities of a material substrate. Material substrate becomes perceptible to sense because of its being either hot or cold, sweet or bitter. Pity and fear, love and laughter are as much qualities of the "substantial" soul as hot and cold are of material body.

It has been very little noticed that Plato almost always uses physical analogies in his analysis of psychical states. Plato's psychology is very largely physiological. He distinguishes virtues of the soul and of the body. Those of the soul are wisdom, courage and justice, temperance, those of the body, health, strength and beauty. Parallel to these is the series of opposite qualities, the vices of body and soul. The Virtues depend on the harmony (symmetry), the vices on the disharmony (lack of symmetry) of the soul or body as the case may be. This explanation of disease, weakness and ugliness, as lack of symmetry in the body and its parts or their relations, was taken over by Plato from contemporary medicine, on which he based his whole science of ethics or therapy of the soul, and in which he saw the pattern of true science and strict method. It should be noted that Plato's view of psychical states was not merely analogical. It was a development of his kindred speculations in physical sciences. It was particularly so, because soul being of a "substantial" nature, was as much the subject of study in physical sciences, as also in psychology.

III-

Greek philosophy and medicine are emphatic that balance is always to be achieved through the union of opposites. An important corollary follows from this position. If opposites alone can reach a balance, likes when brought together must necessarily be augmented and increased. The opposites which Anaximander found in actuality were the traditional ones: warm and cold, moist and dry. When he stated that these opposites "separated out" from the "Boundless" he did not refer (as we would expect) to a mechanistic process. He puts it as follows: "And into that from which things take their rise, they pass away once more, as is meet; for they make reparation and satisfaction to one another for their injustice according to the ordering of time". Heraclitus also looks at the world as the playground of contending opposites. Central in Heraclitus' thought is his doctrine of the unity of opposites. The hostile clash of opposing

forces—one of the major experiences of human life—is found to be the universal principle by which all the realms of being are ruled. When Heraclitus declares that even the division of the world into gods and men, slaves and free, which according to Greek ideas, is the foundation of all order, is based upon War; he aims at nothing less than revolutionising our normal habits of thinking. We must remember his suggestion elsewhere that men can enter the sphere of the Divine by the heroization of those who have fallen in war. This belief, which is common among the Greeks, becomes specially significant in Heraclitus, because he thinks of men and gods as opposites. By war, Heraclitus means the constant interchange and struggle of opposites in the world, including even war and peace.

Empedocles in the "Katharmoi" describes the exiled soul's journey to earth. "A roofed cavern" (Diels A.120) is mentioned and "the joyless land where dwell Murder, Wrath and Tribes of other Dooms, wasting Diseases, Corruptions and works of Dissolution, roaming over the meadows of Disaster in the Darkness" (Diels. B.121). There is also a land where opposites dwell, such as "the Earth Mother and the Sunshine-nymph, bloody Discord and Harmony Birth and Decay, Sleep and Waking, Movement and Immobility, richly-crowned Majesty and Meanness, Silence and Speech". (Diels. B.122, 123).

Pythagoras in Aristotle's *Metaphysics* (986a 23-26), is reported to have drawn the list of the ten opposites. Aristotle's criticism of the Pythagoreans is directed not against the view that there are ten or more pairs of opposites, but that these opposites themselves are predicates of one, which is implicit in both these opposites. Greek philosophic thought beginning with Thales and Anaximander, and subsequently developed in different directions by Heraclitus, Empedocles and Pythagoras, was unanimous on at least one point—that balance in the cosmic order as also in human body and soul, was always to be achieved through the union of opposites.

It has been noted that Aristotle took over the term *Katharsis* from contemporary medicine; and his use of the term has obvious medical implications. Hippocrates uses the term many times; and Galenus uses it very often in his treatises. In "Ancient Medicine" (XIII), Hippocrates writes, "the scientific healer will counteract the hot with cold, the cold with hot, and everything with its opposite". In "Breaths" Hippocrates again writes, "To sum up, in a single sentence, opposites are cures for opposites." The theory of health of Alkmaion of Kroton reaffirms this doctrine of cure by opposites. Galenus in "Natural Faculties" II, ix. 127-28, champions the

doctrine of cure by opposites. "What I say is that we must cool the over-heated stomach, and warm the chilled one; and so we must moisten the one which has become dried up, and conversely". Dr. Arther Brock, M.D., notes "this is the orthodox Hippocratic treatment, that of opposites by opposites". It might be of interest to note that just as heat and cold and other affections are rooted in material body, so also pity and fear are affections of the "substantial" soul. If heat is to be countered by cold, there is no reason why pity can be remedied by pity, or fear by fear?

There is ample evidence in Greek philosophy where we find how likes are always increased and augmented by likes. The general rule of growth for all living organisms, is that "like nurtures like: fire increases fire, earth increases earth, air increases air" (Diels. B. 37). Another fragment of Empedocles, apparently relating to nourishment, says that "sweet seized upon sweet, bitter rushed to bitter, sour moved towards sour, and hot settled upon hot" (Diels. B. 90). In "Coming-to-be and Passing-away", Aristotle writes, "like always increases by like". Joachim in his analysis of "Coming-to-be" in Aristotle's philosophy, says, in all growth, there is a recipient body ($\pi\rho\omega\tau\eta\ \sigma\lambda\eta$) and a new body. At the point of assimilation, this new body must be similar in character to the recipient body and addition or growth is always by its like. In Nicomachean Ethics 1104b 15-20, Aristotle writes, "it is the nature of medicine to work by means of opposites".

Let us now examine more closely the passages referred to by Bernays, Zeller, Sandays, Butcher and others, as supporting the homoeopathic standpoint. Two passages, one from the Laws (791a) and the other from the Politicus (1342a) are supposed to support the contention that pity is to be cured by pity, and fear by fear. The passage in the Laws runs as follows: "Both these affections are forms of fright, and frights are due to a poor condition of soul. So whenever one applies an external shaking to affections of that kind, this external motion thus applied overpowers the internal motion of fear and frenzy". It has been suggested that movement inside is similar in character to movement outside and the cure, as such, is homoeopathic. The passage in the Politicus (1342a) is not essentially different from the one in the Laws (791a). In the Politicus, Aristotle speaks of how to attain this balanced state, when one is "possessed" or frenzied. The passage runs as follows: "And in the case of the sacred melodies we observe that such persons, after listening to melodies, which raise the soul to ecstasy, relapse into their normal condition, as if they had experienced a medical or purgative

treatment". It should be noted that both Plato and Aristotle speak of curing inside (εν) disturbance with a disturbance of an outward (εκ) character; and these two disturbances are taken to be of a similar nature.

But the best tradition of Greek thought has always looked upon "in" and "out" as one of the primary opposites. Diels in I.85.36 (ed. by Kranz, 1954) quotes Anaximander as saying: *οι δε εκ του ενος ενουσας τας εναντιοτητας εκκρινεσθαι*. In I.21.9, Diels refers to Musaios, where we find: *φαναι τε εξ ενος τα παντα γινεσθαι*. Again in II. 296, 24-6, Diels refers to Gorgias: *λαβωη δε δη' πως αν εκρυψα και τους ενδον και τους εξω; πον δ'αν εθηκα*; It might be of interest to note that εν (en) and εκ (ek) (*antar and bahir*) are also a pair of opposites in Buddhist speculative thought (Lankavatara-Sutra). When we look at the passages from the Laws (791a) and the Politicus (1342a) cited by Bernays, Bywater, Zeller and others, from this standpoint, it will be seen that movement inside and outside far from being similar, are essentially opposed to each other.

IV

There is ample evidence in Plato and Aristotle to show that Pity and Fear are opposed to each other, just as hot is opposed to cold, or sweet to bitter. A. W. Benn who drew our attention to the discussion of Pity and Fear in the Rhetoric, has been criticised on the ground that the positions held in the Rhetoric and in the Poetics, are essentially different. But Pity and Fear are opposed, even if we do not rely on the Rhetoric. An analysis of the constituents of Pity and Fear will substantiate the truth of our remarks.

For Aristotle, *θυμος* which is able to "draw us" into dangers, is the natural mode of conative passion with which, as in Plato, courage is concerned. Plato in Philebus (40e) couples fear with anger, or *θυμος*. In Ethics Nicomachean 1117a2, Aristotle holds with Plato, that there is an excess of *θυμος* in courage. Aristotle, with Plato, holds again in 1105b 21-22, that anger, fear, and daring are all associated with *θυμος*. St. Thomas in exact agreement with Plato, lists hope, fear (including shame), daring and anger as passions of the *vis irascibles* (*θυμος*).

It will be seen that just as there is an excess of anger in fear, there is an excess of desire in pity. Pythagoras in Diels I. 471, 22-35,

writes, *οικτων δε και δακρυων και παντων των τυλουτων ειργεσθα*; pity and fear and such others cloud our senses. Plato in Republic 388d, says in pity, "they lose their sense of shame and their hardihood, and weep and lament, loudly over the most trifling misfortunes". Shame is full of *θυμος* (Iliad. 15. 561; Summa Theologica. Prima Secundae. qu. XL-XLVIII). Losing the sense of shame in pity means that there is an excess of desire in it. Thrasy-machus in Diels II. 325, 20 writes, "pity shuts us in".

✓ What happens when pity and fear are brought together is this. The pleasure of art is not merely the pleasure of relief—relief from the burden of pity and fear, or other overpowering passions. It is something much more positive. Plato in the Republic (Bks. III, IV) as also in the Phaedrus, is never tired of pointing out the presence of three elements in the soul. Aristotle in the Nicomachean Ethics 1149b, also speaks of these three elements. What happens when pity with its excess of desire and fear with its excess of anger, are brought together is this. The excess of desire in pity along with the excess of anger in fear, with the requisite amount of reason, which is common to both, disappear in the "substantial" soul. But while the whole of anger in fear and desire in pity is used up, a surplus of reason is always left over, which alone contributes to aesthetic delight.

In Physics (207a-208a), Aristotle discusses the nature of matter. The relevance of the Aristotelian discussion of matter to the present analysis is that. Aristotle at the time of writing the Poetics, looks at soul as a substance (*ουσια*). Aristotle repeatedly says that "the unlimited is really the material out of which a magnitude is completed. As 'unlimited' then, it is embraced, and not embracing. Therefore, qua unlimited is unknowable, since "material" as such is formless."

Aristotle is here speaking of matter as such, without any attribute whatsoever. Matter can be known only when the attributes are unbalanced; but when these three qualities or attributes are held in abeyance by mutual balancing, matter itself disappears. Matter is the remnant, in itself unknowable and alien to reason, that remains after the process of clarifying the thing into a form and a conception. This non-existent matter neither is nor is not; it is "not yet"; that is to say it attains to reality only in so far as it becomes the vehicle of some conceptual determination. Nothing absolutely formless and indeterminate "is" at all. The conception of ultimate matter, absolutely unformed and undetermined does not characterise any substantial reality. ✓ We should note that when opposite emotions are

brought together, the disturbing elements in such emotions, reach a harmony and enter into the ultimate matter, which becomes non-existent.

Aristotle comes back to this question of substrate again in Categories XI. "The subjects of contrary qualities must have the same species or genus. For health and disease have for subject the body of some living creature, and whiteness and blackness of a body, which need not be specified further. And justice, likewise injustice arise in the souls of mankind". In Metaphysics, 1069b, Aristotle writes, "further, something persists, whereas contrary does not persist. Therefore besides the contraries, there is some third thing, the matter Changes must be in each case into the corresponding contrary state. It must be the matter then, which admits of both contraries that changes The causes and principles, then, are three, two being the pair of contraries, of which one is the formula or form, and the other the privation, and the third being the matter". This third is the substrate, without any quality whatsoever, and as such, is unknown. In 1071a, Aristotle discusses how affections (with which we are immediately concerned) and motions are impossible without this substrate. "Now since some things can exist in separation and others cannot, it is the former that are substances. And therefore all things have the same causes, because without substance there can be no affections and motions". The passage is very relevant to the present discussion, because Aristotle is discussing Katharsis of "affected soul" in the Poetics.

Qualities (for emotions and affections are such of the substantial soul) are for Aristotle simply predicables of substance, which in this case is the soul. This subject, as substance, has no contrary term, and as that of which there are predicables, but which itself is predicable of nothing itself, is prior to the contraries (Physics 189a 27-34). Consequently, the substrate is the principle in the full sense of the term, the contraries only secondarily. This persistent substrate which changes from one state to its contrary must be capable of becoming both; it is that from which as potential existence and actual non-existence all things come to be. Such a substrate, Aristotle purports to find in the original mixture of Anaxagoras, the sphere of Empedocles, the limitless body of Anaximander, and the unorganised atoms of Democritus (Metaphysics, 1069b 18-32). This substrate by itself is unmanifest, and as such *αγνως* or unknown. All affections are rooted in this substrate; they become manifest and are differentiated from one another, only when the three constituent elements of the soul; reason, anger and desire, are mixed in different proportions.

The original mixture of Anaxagoras, the sphere of Empedocles,

or the apeiron of Anaximander, is the underlying reality. Aristotle takes these to mean the same thing as his prime matter or *υλη* (Metaphysics, 1069b). The designation *το υπακειμενον* means that it is the thing in itself, without any attribute whatsoever. In the phenomenal world, a thing is known by its attributes. A thing is either hot or cold, sweet or bitter, fearful or piteous. But a thing which is none of these, goes under and disappears from the phenomenal world. It disappears for the time being, so long as the three qualities are in harmony. But this cannot continue indefinitely, for anger is ever restless. We should also note that the noumenal world is also characterised by the three attributes, we have just noted. ✓

When the qualities mutually balance with each other, there is neither sweetness nor bitterness, neither heat nor cold, neither pity nor fear. But things are such in the world of men, that complete balancing is never possible. What happens in art-experience is that there is always a surplus left of the nobler element, while the rest reach a harmony between them. Plato in his attack on Poetry, did not notice that art even when representing anger and desire (Republic 604d), can arrive at reason. Aristotle's defence of Poetry is, in a sense, his defence of *λογιστικον*.

The contention that there is always a core of intelligence in all aesthetic pleasure is amply supported by Platonic and Aristotelian philosophy. Plato banishes Poetry, because he does not dare to neglect justice or the rest of virtue (Republic 608a). This justice is the concord of the three elements (Republic 443d-44a), and Plato is convinced that in an ideal Republic, this rational element must rule (Republic. 442b-c). The contention of Aristotle's Poetics does not essentially differ from this Platonic demand that art experience is always experience of intelligence *λογος*. The liberal arts which adorn life and minister to pleasure are said to be synonymous with which we find *δευρωγη* (Metaphysics, 982b 23). In Politics 1339a 25, *δευρωγη* is joined with *ερωνησις* and stands for the higher aesthetic enjoyment which music affords. In Politics 1339b 14sq., as already noted by Dr. Butcher, three ends are mentioned which music may serve and the last is said to combine with *λογος* both of which elements enter into *ευδαιμονια*. Its reference is to the life of thought in Ethics Nicomachean 1177a 27, where it is applied to the activity of the speculative reason, and in Metaphysics 1072b 10-16, where it denotes the activity of the divine thought. Aesthetic pleasure is saturated with intelligence, and by that very fact is much more in conformity with the nature of man. Man, says St. Augustine, is primarily an intelligence using a body (De

Moribus Eccl. Cath. 1, 27, 52). Aesthetic pleasure is not simply sensuous pleasure, but rather the pleasure of intelligence. The doctrine of Katharsis visualises this passage from the sensible to intelligible—and this is to be always achieved through the union of opposites. Our standpoint is in conformity with the essential teachings of Platonic and Aristotelian philosophy. Porphyry in "Auxiliaries to Intelligibles" also discusses this passage from sense knowledge to aesthetic experience in connection with Kathartic virtues. ✓

The predominance of λογιστικον (logistikon) over the θυμος (thumos) and the επιθυμητικον (epithumetikon) gives us a foretaste of the world of completely liberated. This can at best be no more than a foretaste; for the three qualities can never be isolated from one another. There is a position at the other extreme. It is the world of completely fettered, where the qualities themselves lose their identity in the completely unknown. The greatness of aesthetic enjoyment lies in that while it is rooted in the completely unknown *αλη*, it spreads out and almost reaches the world of λογιστικον (logistikon). In it bondage and freedom are reconciled; liberation in art is not very much different from being completely enmeshed in it.

This interpretation of the doctrine of Katharsis is in essential conformity with the main tenets of Aristotelian philosophy. Passions and affections are potentiality. Aristotle understands by Potentiality in general Being as mere susceptibility—Indeterminate, undeveloped self-existence, capable, indeed, of becoming a definite reality, but not yet made into one. By Actuality, on the other hand, he means the same being considered as a developed totality or Being, which had wrought out all that it contains into full existence. One Matter and one Form constitute the fundamental elements which in various combinations, produce the aggregate of things. Matter is mere Potentiality without any Actuality whatsoever. Thus in analysing conceptions into their two elements, Aristotle attributes to the genus the same significance as Matter, while he identifies the specific difference, the individuality with the Form. Similarly in the scheme of the universe, in physiology, in zoology, in psychology, the upper and lower spheres and elements (De Caelo. 310b 14, 312a 12, Gen. et. Corrup. 318b 32, 335a 18), the soul and the body (De Anima. 412b 9, 414a 13), the male and the female (Gen. An. 732a 3, 738b 20; Meta. 988a5, 1024a34), the Active and the Passive Reason (De Anima. iii. 5) stand to one another in the same relation as the Form and the Matter. The same is true of Potentiality and Actuality. Pythagoras in Diels. I 454. 40 identifies affections with matter. Democritus in Diels II 137. 20 speaks of matter as potentiality. By Katharsis of the affected

soul, Aristotle obviously was referring to the evolution of actuality from the mere potentiality of passions, through the union of opposites. It need hardly be emphasized that actuality of passions is their element of reason. The emergence of this immanent reason is thus what Aristotle possibly meant by his doctrine of the Katharsis of Pity and Fear in the Poetics.

* The attempted explanation of Katharsis as "abreaction" makes no sense for the simple reason that Plato and Aristotle were not Freudians. The passage from the Politics (132a) refers to the practice of the Corybantes. The Corybantes were supposed to attain a balanced state by wild beating of drums and orgiastic dance. The beating of drums in ancient Greek and Buddhist practices was for the supposed power of wild sound to scare away devil. (Encyclopaedia of Religion and Ethics ed. by Hastings). Yet such passages as these have been interpreted as if the disturbance inside is similar in character to the disturbance outside.

Reviews and Notices of Books

Human Knowledge, Its Scope and Limits—By Bertrand Russell
George Allen and Unwin Ltd., London, 1948. Price 18s. net.

This book comes from the pen of Lord Bertrand Russell the British philosopher. It is divided into six parts. In part I the illustrious author deals with the world of physics in general and some scientific problems in particular. In part II he tackles the problem of language and considers the various aspects of it and gradually proceeds to discuss some basic logical and epistemological problems in the light of his analysis of the structure of language. In part III the whole problem of knowledge and perception is probed from the viewpoint of science. In part IV some scientific concepts are sought to be clarified, such as structure, time, public and private, space in classical physics, space-time, causal laws, etc. In part V probability and different kinds of probability are discussed, and in part VI a disquisition is given on the postulates of scientific inference.

Although some different sets of questions are brought into the discussion, a fundamental theme runs through the book. As Lord Russell puts it, "In this book I have sought to deal, as comprehensively as I am able, with a very large question: how comes it that human beings, whose contacts with the world are brief and personal and limited, are nevertheless able to know as much as they know?" This problem has no doubt engaged the attention of many a philosopher through the centuries, and a number of theories of perception or perceptual knowledge have been developed by some thinkers in their attempt to solve this problem. Russell re-formulates and reconsiders the problem in the light of the researches in the domain of physics. In this context he incidentally makes some very interesting observations on Kant and his contribution. Kant is said to have effected a Copernican revolution in philosophy. According to common men and also the common-sense theory, as we know, the world is there with things and beings and man's knowledge or knowing does not in any way affect their nature or existence. Idealism, on the other hand, makes the world dependent on mind in some way or other. "Ever since Kant, or perhaps it would be more just to say ever since Berkeley," says Russell, "there has been what I regard as a mistaken tendency among philosophers to allow the description of the world to be influenced unduly by considerations derived from the nature of human knowledge..... In describing the world, subjectivity is a vice. Kant spoke of himself as having effected a "Copernican revolution," but he would have been more accurate if he had spoken of a "Ptolemaic counter-revolution," since he put man back at the centre from which Copernicus had dethroned him."

Surely, however, none can miss the meaning of Kant's phrase "Copernican revolution." As has been stated above, according to common sense, the world is there and exists in its own right and men and minds fall among the countless changing elements of the world. It is needless to say that Copernicus revolutionized the outlook of men by showing that the sun, not the earth as Ptolemy and common men supposed, is the centre of the heavenly system. Kant's work was somewhat similar to the work of Copernicus. Kant revolutionized men's view of the world by making mind the centre of the world, by showing that objects and the world as a whole are dependent upon mind and its constructive principles. In astronomy the problem is whether the earth is fixed and the sun and the other heavenly bodies revolve round it, while in epistemology the problem is whether the object is independent of mind, or whether mind constructs it. Whereas common men and common-sense philosophers think that knowledge turns on objects, Kant maintains that objects turn on knowledge, and, for the matter of that, on mind. This is obviously what Kant means by the phrase "Copernican revolution" as he employs it in defining his position.

According to Russell, in the context of knowledge subjectivity is sin. But the scientific, *i.e.*, causal view of perception clearly posits two worlds, the world as it is in itself and the subjective world, or rather the world tinged with subjectivity. Russell himself admits that whatever man knows is in an important sense dependent upon his individual experience, on what he sees and hears and also what he is able to infer from these data. Russell is of opinion, however, that we know much of the real world, although what we know appears to be very little compared with what yet remains unknown. And here is indeed a great problem. It is: how could a scientist get out of his subjectivity and reach out to the real world and formulate the causal view of perception? Russell clearly grasps this problem and formulates it with a flare of genius. But he does not provide quite a solution to it. He nevertheless suggests that knowledge in a way transcends experience in the limited sense of the term and that Logical Positivists err in thinking that knowledge is tethered to experience and verification through it. He, of course, considers some details regarding the kind of *apriorism* he advocates. But it is yet to be fully worked out.

We are told that the book is intended for general readers, not for professional philosophers. But how could the author make the scientific conceptions clear to common men, we wonder, which are undoubtedly highly technical and the understanding of which presupposes a good deal of training in science and scientific knowledge. It seems that the common reader knowing as he does nothing of philosophy and science would lose his bearing in the wood of technical details in the book.

The fact, however, remains that the book is a production of a master mind. It would, I am confident, prove highly informative and useful to those who have already had a grounding in both philosophy and science.

ADHAR CHANDRA DAS

Graham Greene.—By Francis Wyndham; Published by Longmans, Green & Co., for the British Council and The National Book League; Impression of 1955; Pages 32; Price 2s net.

Primarily a novelist, Greene has a versatile genius. But his works in other fields—his verse collection, "Babbling April," his only drama, "The Living Room," his travel book, "Journey without Maps," and his production in belle letter, "The Lost Childhood and other Essays," and lastly his contribution to criticism, "Why do I write?"—are viewed by Mr. Wyndham as stimulating writings throwing light on his essential work in fiction.

His merited fame is based on equally great powers in short stories like "Stamboul Train" and "The Ministry of Fear," described by the author as 'entertainment' to indicate light fiction as distinguished from serious novel, as well as in 'novels of stature' like "The Basement Room" and "The Heart of the Matter." The themes have been interpreted with outstanding technical ability, acute observation, a high level of intensity, and sensitiveness to atmosphere. The plot, as in "The Power and the Glory," is concentrated, economical, and coherent. Characterization is three-dimensional, as in his creation of Scobie. To all this is added his absolute sincerity working to white heat, for instance, in his picture of Mexico during a time of political strife and religious persecution.

But it is the subtle psychological treatment wherein Mr. Wyndham lays Greene's credit as a novelist. In words like "The Man Within" and "The Ministry of Fear" he excels as a master of the psychological thriller with its normal paraphernalia of Secret Service Spying, ring of enemy agents, loss of memory in bomb explosion, and all that. Brooding and mental aberration take queer turns in imagining the horrors of sex, as projected in the figure of Pinkie, the author betraying an addiction to the less appealing side of sex adventure with emphasis on squalor and 'seediness.' But Greene seems to have his preoccupation with the psychology of despair. "Journey without Maps" reflects the ennui of life, which is without meaning, without risk, and without beauty; while "The Heart of the Matter" is a study in pity, fear, and despair as the Roman Catholic Church knows it. The method employed is virtually that of Virginia Woolf's *Stream of Consciousness*, recognizable as such in "England Made Me," and further developed in "The Basement Room," screened as "The Fallen Idol," into the technique of God's-eye view into the future, where

a boy is conceived as witnessing something that will carry with him till his death.

The critic is keen in observing the influence on Greene of religion, especially of the Catholic faith. He attempts to restore to the English novel, as Eliot did to poetry, the sense of religion and the importance of the human act. "Brighton Park" is the first positive indication of Greene's conversion to Catholicism. Its elements continued to work throughout his career: conflict between good and evil, as it became more and more specialized within the terms of the Catholic faith, the heroes struggling with the "stern unrelenting critic" which is 'the man within'; despair generated from the problem of the Catholic in relation to an impossible physical love; the recurring theme of pursuit, fear, and pity, and the endless, restless quality of man's search for salvation and his faith in God's mystery and love for man. Wyndham shields the violence in Greene's thrillers as offering opportunities for carrying to their absolute ends both human capacity for cruelty, fear, and despair, and God's capacity for mercy. But while his sense of sin is distasteful to non-catholic readers, Greene's mingling of good and evil, weakness and strength, as in the central character of the priest in "The Power and the Glory," as also the terrible indictment of the pious catholic in "The Living Room," have disturbed his catholic critics.

K. LAHIRI.

Gerard Manley Hopkins.—By Geoffrey Grigson; Published by Longmans, Green & Co., for the British Council and The National Book League; First Impression, 1955; Price 2s net.

Thirty years after his death Hopkins awoke into posthumous fame with the publication of the collected edition of his poetry in 1918. The admiration for his unique vision and metrical experiments has since been on the rise, and Mr. Grigson's enthusiastic elucidation will increase this interest. He brings a poet's acuteness of perception to interpret Hopkins' naturalism as a scientific neutrality free from conventional poetic associations and aesthetic preferences, as evinced in the description of, not a rose or lily or iris, but the structure of Wood Sorrel leaves, and in the unexpected analogue of eggs in an ant-hill for plump, round clouds. The starkness of vision is simultaneously divorced from the averagely fine poetic diction of the nineteenth century.

To understand such poetry the reader must cultivate some equivalence of pure sensation, an 'empathic cognition' of plants, fruits and grains, of skies, clouds and birds, of waters, surfaces and perfumes, to which the poet opens his senses. Poetry is born in an earnest possession of environment, without throwing rhetorical gestures towards Nature. Recognizing her personality, the poet evolves a 'passionate science' effervescing with intense delight in grasping her forms with a scientist's firmness.

At the same time Hopkins checks too much eccentricity of observation, lest it lies outside the likely experience of readers, and corrects passionate emotions by a careful selection of details. This force or high voltage of love and grandeur running all through explains Hopkins' strangeness, really emanating from his seizure of an 'inscape' or distinctive beauty, his mind individuating the apparently simple as much as the complex. And the imagery in which the sensation is clothed has Keatsian delicacy of colour and shape, as displayed, for instance, in the gemmy brilliance of sea creatures in *A Vision of the Mermaids*. Mr. Grigson traces the imagery to their possible sources in the poet's past experiences. Hopkins' diary and correspondence are utilized to throw light on his poetry in the manner in which Dorothy's *Journal* has been useful in interpreting Wordsworth's Nature poetry.

Hopkins' philosophy is defined through the details of his passionate naturalism. Over the enrichment of his particularizing science come the effects of religious discipline. Poetry is enlivened with the flush and fullness of meanings, causes, and principles. Hopkins seems to join the company of George Herbert and John Donne. The year of his ordination is a prolific season, yielding masterpieces like *Peace*, *Binsey Poplars*, *Carrion Comfort*, *No Worst*, though the preceding period of service and self-dedication as a priest of the Society of Jesus is barren. Mr. Grigson seems to be concerned more with the working of the poet's mind 'in earnest with his subject' than with the handling of his medium. Practically no notice is taken of Hopkins' experiments in Sprung Rhythm which preoccupies many a critic.

K. LAHIRI.

Ourselfes

PRESENTATION OF 54 VOLUMES OF DIPLOMATIC HISTORY TO THE UNIVERSITY LIBRARY

On 23rd May, 1956 the Government of the Federal Republic of Germany (Bonn) presented to Calcutta University Library 54 volumes of Diplomatic History (Die Grosse Politik der Europäischen Kabinette, 1871-1914). On the occasion a ceremony was held in the Library Reading Hall when Dr. Hans Ulrich Meyer, the Consul General, German Federal Republic, explained the importance of this documentary publication, and the Vice-Chancellor on behalf of the University of Calcutta received the gift with thanks and said that this occasion might be considered as the beginning of a new chapter of close cultural relation between Germany and India. The speech of the Consul General of the Federal Republic of Germany, delivered on the occasion of the presentation ceremony is given below :

The German Consulate General at Calcutta has received instructions from the Ministry of Foreign Affairs of the Federal Republic of Germany in Bonn to present a series of 58 volumes of important and valuable documents to the Central Library of Calcutta University. I have the honour and the privilege to entrust these books to the authorities of this University and its Library, hoping that they may serve students and research scholars of history to understand and evaluate a period of relative stability in European History which preceded our present age of wars and turmoil.

The documents incorporated in these volumes consist of treaties, notes, letters, and other historical evidence in the respective original languages and in the full length texts. They cover the period from 1871 to the outbreak of World War I and they were published in 1922, under the title "Die Grosse Politik der europäischen Kabinette" which—in a very liberal interpretation—would mean a "Survey of International Relations" for the period in question, as revealed by the various European government archives.

This period was clearly defined as a unit in its beginning by the Franco-Prussian War of 1870/1 on the one hand, and by the World War which started in 1914 on the other. Its entire duration of 43 years has almost elapsed again since then. It was an era of Colonialism and industrial revolution, of capitalism and socialistic movements, of religious and cultural struggles, of convertible currencies and regular business cycles, but above all of European Nationalism.

The period was characterized at first by the rising power of Germany after the war of 1870/71, by the weakness of France, and the indifference of England in European affairs, being principally concerned as she was with the consolidation of her Empire in the late Victorian and Edwardian period. In the first decade *Bismarck* whose figure dominated the scene, attempted to follow a policy of the free hand, but the constant friction between Austria and Russia with regard to the Near East made it necessary for him to make a choice between them. At the Berlin Congress of 1878 Bismarck was called the "honest broker". Later on he embarked upon a policy of alliances which ultimately involved most of the European powers in one group or another. The elaborately conceived system gradually disintegrated when its master had gone. The effect of technical and industrial advance on warfare resulted in growing anxiety for security on all sides, and consequently to alignments for the event of war which, in fact, tended to make war more likely. At the same time the expansion of European powers in Africa and Asia greatly extended the field of possible friction. Neither the treaties nor the emperors' alliances, or the Hague peace conferences of 1899 or 1907 were able to solve the problems, although the latter conference enlarged considerably the machinery for voluntary arbitration, and concluded conventions regulating rules of war, rights and obligations of neutrals, etc. which are still of importance.

We can see the world only from the point of view of the various cabinets in these documents, *i.e.*, international relations from above. Our knowledge about the important social changes under the industrial revolution has to be added in order to give the full picture. But it is very fascinating to go through these pages and to see how the solemn wording of treaties, notes and letters changes in the course of time, and how the factual material becomes more abundant and enlightening towards the end of the period. It is interesting to see how events were no longer grouped together by years and months, but by days and even hours in the documents shortly before the outbreak of World War I.

No author in the customary sense is responsible for these books, and no opinions and conclusions are brought forward other than those expressed by the statesmen who were responsible for the historical events.

May these documents help all of us to find the truth, may we always have the courage to speak the truth and may we learn from our mistakes in order to avoid war and to achieve lasting peace.



Notifications

CHAPTER XXXVIII-B

CERTIFICATE IN JUTE TECHNOLOGY

1. An examination for the Certificate in Jute Technology shall be held in Calcutta (and such other places as shall, from time to time, be determined by the Syndicate) twice yearly on such dates as the Syndicate may determine on the recommendation of the Board of Studies in Jute Technology.

2. Any undergraduate of the University may be admitted to this examination provided he has fulfilled the following conditions :—

- (a) That he has passed the Intermediate Examination or any examination considered by the Syndicate as equivalent thereto with Physics, Chemistry and Mathematics and, preferably, with Botany or Biology as an additional subject.
- (b) That, after passing the Intermediate Examination or its equivalent, he has prosecuted in an institution affiliated to or recognised by the University for this purpose, a regular course of study, both theoretical and practical, in the subjects mentioned in Section 6, for three academical years, out of which not less than 12 months or more than 18 months shall be spent in practical training in a jute mill.

3. Every candidate, sent up for the examination shall produce a certificate (a) of good conduct, (b) of diligent study, (c) of having satisfactorily passed the periodical examinations of the Institution and other tests, and (d) of probability of passing the examination. Every candidate shall send in with his application a certificate in the form prescribed by the Syndicate to the Registrar at least six weeks before the date fixed for the commencement of the examination.

4. A fee of Rs. 50 shall be forwarded by each candidate with his application. A candidate who fails to pass or to present himself for the examination shall not be entitled to claim a refund of the fee but may be admitted to one or more subsequent examinations on payment of a like fee of Rs. 50 on each occasion provided he produces from the head of the institution concerned a certificate showing that he has in the meantime prosecuted a further regular course of study to the satisfaction of the head of the institution during the year immediately preceeding the examination at which he presents himself.

4(a). A candidate who fails to obtain pass marks in one subject only but obtains at least 50 per cent. in the aggregate and does not qualify for a pass in the Second Class (Section 13) may, on payment of a fee of Rs. 25, appear in that subject only at any one of the next three examinations, provided he produces a certificate from the head of the institution concerned that he has meanwhile prosecuted a further regular course of study in that subject to the satisfaction of the head of the institution. If he then obtains at least 50% of the full marks in the theoretical papers as well as at least 50% in the practical (or oral) he shall be declared to have passed the examination as a whole.

5. The examination except the oral shall be conducted by means of printed question papers, the same papers being used at every place at which the examination is held.

6. The subjects for the examination for the Certificate in Jute Technology shall be :—

(i) Spinning, including marketing, production and grading, (ii) Weaving, including fabric structure and design, pattern analysis, finishing, and uses of jute goods, (iii) Engineering, including drawing and design.

(iv) Textile Science, including general fibre study, physics, testing, elementary Statistics, Chemistry and its applications in bleaching, dyeing and finishing, (v) Elementary Economics and Business Management.

7. The examination shall be written, practical and oral. In assessing marks at the practical and oral examinations the examiners may take into account the records of the work done in (a) the practical classes and (b) the mill training by the students during their period of study. The records should be signed for (a) by the teachers in the subjects and for (b) by the head of the institute concerned.

The examinations in the subjects enumerated under Section 6 shall consist of the following :—

Subjects (i) and (ii)—Two theoretical papers and an oral examination in each.

Subjects (iii) and (iv)—Two theoretical papers and two practical papers in each.

Subject (v)—One theoretical paper only.

Three hours shall be allowed for each theoretical and each practical paper. The duration of the oral examination will be at the discretion of the examiner(s).

In the oral examination the candidates may be taken before the machines and should be able to explain and demonstrate practical points regarding their construction, mode of action, adjustment and maintenance. They may also be asked questions on the raw material and materials in process.

8. The distribution of marks in the theoretical and practical papers and oral examination shall be as follows :—

Theoretical

<i>Paper I</i> —Jute production, marketing and grading. General mill lay-out and organisation. Spinning processes up to drawing frames, with calculations.	75
<i>Paper II</i> —Roving and spinning frames. Yarn reeling and bundling. Yarn twisting. Ropes and cordage. Calculations.	75
<i>Paper III</i> —Processes preparatory to weaving. General principles of weaving. Power loom weaving. Cloth finishing. Bags and sacks. Baling.	75
<i>Paper IV</i> —Yarn and cloth calculations. Fabric structure and design. Pattern analysis. Uses of jute goods.	75
<i>Paper V</i> —Applied mechanics. Engineering mathematics. Basic principles of heat engines. Steam boilers. Steam engines. Hydraulics. Turbines. Internal combustion engines.	75
<i>Paper VI</i> —Electrical engineering. Mill engineering. Engineering drawing and design.	5
<i>Paper VII</i> —Physics. Textile testing. Elementary statistics	75
<i>Paper VIII</i> —General fibre study. Chemistry and its application in bleaching, dyeing and finishing.	75
<i>Paper IX</i> —Economics and business management	50
	650

Practical and Oral

	<i>Maximum Marks</i>
<i>Paper I</i> —Spinning (oral)	75
<i>Paper II</i> —Weaving (oral)	75
<i>Paper III</i> —Engineering Drawing	75
<i>Paper IV</i> —Engineering Design	75
<i>Paper V</i> —Physics, testing and fibre study	75
<i>Paper VI</i> —Chemistry and its applications in bleaching, dyeing and finishing.	75
	450

9. The examination shall be conducted in accordance with the limits of the syllabuses as given under Section 16. The paper-setters and examiners shall be appointed by the Syndicate on the recommendation of

the Board of Studies in Jute Technology. The Board of Studies in Jute Technology together with any other person or persons appointed by the Syndicate shall form the Examination Board to consider the result and report the same to the Syndicate for confirmation.

10. Candidates shall be required to pass separately in the oral and the practical as well as in the theoretical portions of the examination in each subject.

11. As soon as possible after the examination the Syndicate shall publish a list of the candidates who have passed, arranged in two classes, each in order of merit. Each successful candidate shall be given a Certificate in the form prescribed in Appendix A.

12. In order to pass the examination, a candidate must obtain 40 per cent. of the full marks in the theoretical portion and in the practical portion of the examination in each subject and in each oral examination and 50 per cent. in the aggregate. Candidates obtaining not less than 50 per cent. of the aggregate marks shall be placed in the Second class and those obtaining not less than 66 per cent. in the First class.

13. Any candidate who fails in the theoretical papers in one subject only and by not more than five per cent. of the full marks for those papers, but has shown merit by gaining 60 per cent. in the aggregate marks of the examination, shall be allowed to pass in the Second class.

14. If the Examination Board is of opinion that in the case of any candidate not covered by the preceding regulations, consideration ought to be allowed by reason of his high proficiency in a particular subject, or in the aggregate, it shall forward the case to the Syndicate with a definite recommendation and the reason for such recommendation. The Syndicate may accept the recommendation or may refer the matter back to the Board for reconsideration.

15. The Syndicate on the recommendation of Board of Studies in Jute Technology and the Faculty of Technology shall have the power to modify the subjects for the examination as well as the limits of the subjects. Text-books and reference books for the students will be recommended by the Board of Studies in Jute Technology.

16. The limits of the different subjects, both theoretical and practical, are given below.

Note.—In studying the processes embraced under spinning, weaving and finishing, adequate attention should be paid to such matters as lay-out of machines, horse-power requirements, labour requirements, maintenance of machines, treatment of waste, and safety devices.

A. SPINNING, INCLUDING PRODUCTION, MARKETING AND GRADING

1. *Jute Production, etc.*—Chief jute growing areas. Temperature, soil and rainfall requirements. Agricultural operations, Jute seed. The botany of the plant and the fibre. Species and varieties of jute. Retting

Assortment, baling, transport, marketing, etc. Grading. Bale marks. Storage of jute. Importance of moisture content.

Characters of the fibre and their relation to its suitability for various purposes.

2. *Outline of processes* used in the production of yarns. The jute mill—general outline.

3. *Batching Department.* Bale openers. Setting of batches for various types of yarn, according to colour, quality and price. Calculations of prices of batches. Striking up.

Jute softeners. Machine details, output, safety devices. Addition of oil and water, or of emulsions. Hand and machine application. Adjustment of oil and water added to suit conditions. Piling after batching. Cuttings and treatment of cuttings.

The Goods type spreader-softener-hackler.

4. *Carding.* Objects of carding. Details of essential parts of breaker and finisher cards. Carding action. Pin density and pitch. Gauging or setting. Carding faults. Methods of regulating the weight of the sliver. The dollop system. Balling system. Calculations of speeds, draft, production, etc. Characters of the card sliver.

Intermediate cards. Combined breaker-finisher cards. Fine cards. Drawing heads. Roll formers.

Teaser cards. Dust shaker.

5. *Drawing Frames.* Objects of drawing and doubling. Types of drawing frames—spiral, pushbar and rotary. Details of construction, adjustments and mode of action, with all necessary calculations. Influence of reach, nip, lead, pinning, doublings and faller mechanism on the sliver produced. Specifications of pinning of typical machines. Faller speed limitations. Pressure on pressing rollers and methods for calculating it. Can packing and turning mechanisms. Roll formers. Faults in the operation of the machines. Characters of the silver. Crimping devices.

The Eves' drawing frame.

6. *Roving Frames.* Functions. Insertion of twist. Necessity for regular building of the rove on the bobbins. Mechanisms of typical frames. Drafting, twisting, bobbin building. Function of builder mechanism and ratchet or index mechanism. Control of bobbin speed. Differential motions and their controlling mechanisms.

Specifications of typical machines, including pinning for particular purposes. Theory of twist, actual ranges employed for various sizes and qualities of rove—relation to builder and index calculations.

Calculations for draft, twist, builder and ratchet changes—flyer, faller and other speeds. Changes necessary when changing from one size of rove to another.

Bobbin capacities and production of typical machines.

Arrangement and numbers of machines from breaker card to roving frame. Speeds, etc. to produce definite count at roving frame with given twist. Production calculations.

Allowance for waste, evaporation and take-up:

Gill spinners, regulated and non-regulated. High speed, automatically doffed gill-spinners.

7. *Spinning Frames.* Function and outline of action of the machine. Fibre control in drafting. Function of breast-plate and its setting for various conditions. Flyer lead, and bobbin lead. Drag mechanisms. Details of construction. Comparison between ordinary and high-speed machines. Principles of high-speed, automatically doffed frames. Automatic stop motion.

Typical specifications of ordinary and high-speed frames for various ranges of yarn counts. Comparison of bobbin capacities, horse-power required, etc. Methods of driving and controlling start and stop.

Draft, twist, builder and production calculations. Changes of draft, twist and builder speeds. Faults in bobbins and yarn. Theory of twist. Direction of twist. Relation of twist to yarn strength and other characters. Amount of twist required for yarns of various counts and types.

Gill spinning. Ring spinning. Sliver spinning.

Take-up due to twist. Residual moisture in yarn. Efficiency and production.

8. *Twisting, Braiding, Cabling and Rope-making.* Definitions and principles. Rules for amount and direction of twist. Descriptions of typical twist frames. Ordinary and stopmotion twisters (light and heavy). Ring and tube twisters. Braiding and plaiting machines. Cabling machines. Stranding and closing machines. Rope-walks. House machines.

Speed, twist and production calculations, including allowance for take-up.

9. *Yarn reeling and bundling.* Reasons for reeling. Description of typical machines and the reeling process. Calculations. Bundling-stool and press.

10. *Treatment of jute substitutes on jute machinery.* Limitations and special points for attention. Mixed yarns of jute and other fibres spinnable on jute machinery.

11. *Flax and Hemp Spinning.* Brief outline.

B. WEAVING, FABRIC STUDY AND FINISHING

1. *General Introduction.*

2. *Processes Preparatory to Weaving.* Bobbin and roll winding machines. Construction and action of typical machines. Speeds and production. Modern high-speed machines—open and universal wind.

Cop and pirn winders—construction and action of typical machines. Speeds and production. Northrop pirn winder—bunching mechanisms.

Points to observe in winding. Advantages of different types of packages. Faults that may arise.

Warping operations. Dry beaming. Warping mill. Chain beaming. Linking machine. Dressing machine—construction, driving and winding on of loom beam. Dressing mixture ingredients. Points to note in dressing—drying temperature, measuring, marking. Relative advantages of warps made on dressing machine and warping mill, and of dry and starched warps. Hot-air drying machine—advantage over cylinder drying.

3. *General Principles of Weaving* illustrated by hand-loom. Definition and nomenclature. Arrangements for plain and twill weaves.

4. *Yarn and cloth calculations.* Yarn numbering systems. Conversion from one system to another. Ply yarns, numbering and calculations Allowance for take-up. Relative costs of single and ply yarns. Sett systems, jute and linen. Fileying. Warp calculations, weft calculations. Cloth calculations—weight of warp, weft, counts of warp and weft; ounces per yard. Determination of ounces per yard from bag specifications. Reed and camb numbering. Fabric shrinkage. Production problems.

5. *The Power Loom.* Types of cams and reeds—construction, etc. Principal and secondary movements. Top-roller mountings for hessian. Sacking and other twill fabrics. Shedding mechanism. Types of shedding. Points to note in shedding. Details of picking, beat-up, let-off and take-up motions. Timing and adjustment of principal motions. Faults in the cloth; appearance, causes and avoidance. Wyper or tappet drawing for plain weave and simple twills. Effect of variation of dwell and change on yarn and cloth.

6. *Cloth Structure.* Use of point paper. Plain weave and derivatives. Warp and weft ribs. Matt weaves—basket or hopsack. Systematic construction of simple twills. Weave repetition. Numerical methods of expressing weaves. Relationship between design, draft and weaving plan. Production of simple designs. Special weaves—huck-a-back, mock leno, honeycomb. Selvedge construction; side and centre selvedges. Patent selvedge.

7. *Further details of Power-loom weaving.* Dobby shedding mechanisms, single lift, double lift and open shed. The shuttle. Picking. Loose-reed warp protector. Temples. Wyper or tappet drawing for twills and special effects. Camb-leaf reversing motions.

Shuttle box motions—revolving and drop-box types. Automatic weft replenishing devices—cop, pirn and shuttle. Warp and weft stop motions.

Principles of the Jacquard machine. Single lift, double lift. Sett of harness, cords per hook, size of repeat, casting-out problems. Harness ties. Card cylinder motions. Card cutting, lacing and wiring.

8. *More advanced Cloth Structure and Design.* Stripe and check effects, with and without coloured yarns. Point paper development. Modified hop-sacks. Crape weaves. Motif design for Jacquard weaves.

Factors governing the appearance and characters of a fabric.

Narrow fabrics. Other special fabrics, General outline of carpet manufacture of different types.

Combination of jute with other fibres in union fabrics, etc.

9. *Further Yarn and Cloth Calculations.* Loom driving motions, direct and compound. Uptake mechanism. Yarn diameters and "working diameters". Choice of porter and shots for a given weave. Sett where warp and weft are unequal in thickness. Changing from one weave to another.

10. *Pattern Analysis.* Methods. Distinguishing warp and weft. Estimating porter and shots and warp and weft counts. Development of design, draft and weaving plan. Colour arrangements. General characters, observable and measurable.

11. *Cloth Finishing.* Objects and general principles. Cropping. Damping. Calendering. Mangling. Measuring Crisping, rolling, lapping, packing, Cutting, sack sewing and printing. Bag calculations. Calculation of sizes of bales and hoops. Dead weight measurement. Starching,

and drying. Proofing. Cloth inspection. Finishing faults, their causes and avoidance.

12. *Uses of Jute.*

C. ENGINEERING

1. *Engineering Mathematics.* Applied mathematics including use of the slide rule. Examples illustrating important mathematical principles applied to engineering. Exercises on engineering formulae.

2. *Applied Mechanics.* Stress, strain and elasticity. Tensile stress, compressive stress and shear stress. Ultimate strength, breaking stress, factor of safety. Ductility and malleability. Stress in thin shells.

Beams and structures. Dead and live loads. Shearing force and bending moment diagrams for cantilever and simply supported beams, with concentrated and distributed loads. Calculation of bending moment, section modulus, bending intensity, radius of curvature, etc. for simple sections.

Twisting. Calculation of torsional stress and strain and shaft diameters.

Framed structures. Stresses in perfect frames. Simple framed roofs and girders. Loaded chains and cords.

Gauges and standards. Sheet metal, wire, screws, etc.

3. *Basic Principles of Heat-Engines, Hydraulics and Electrical Engineering.* Steam boilers. Steam engines. Efficiency. Steam Turbines. Internal combustion engines.

Flow of a liquid. Venturi meter. Friction in pipes. Pumps. Turbines. Motors and generators. Three-phase working. Motor starters. Transformers. Converters. Rectifiers.

Wiring systems. Types of cables, etc. Distribution boards. Main switch gear. Electrical instruments. Meters. Electric lamps for industrial use. Wiring and switching systems for lights.

4. *Mill Engineering.* Mill Buildings. Wall, Roof, Windows, Doors, Glazing. Basic principles of industrial lighting. Calculation of lighting efficiency; factors affecting it. Illumination requirements in various parts of a mill. Factory Act requirements.

Internal transport. Lifts, conveyors, etc. Shafting and supports. Twisting and bending forces. Vibration. Relation of H. P. transmitted to diameter and speed. Couplings, various types. Bearings.

Belts and pulleys, H. P. relationships. Rope—drives, fee-belt drives. Friction clutches. Chain transmission. Lubricants lubrication.

Mill workshops. Ventilation. Dust extraction. Humidification and air-conditioning.

5. *Drawing and Design.* Use and care of drawing instruments. Lettering, Scales, Geometrical drawings, Projection of points, lines, planes and solids. Freehand sketching of machine parts. Orthographic projection of simple machine parts (rivetted joints, bolts and nuts, etc.).

Mechanical drawing conventions. Dimensioning of workshop drawings. Drawing of more complicated machine parts. Preparation of detailed drawings from sketches and general arrangements, and *vice versa*. Isometric projection.

Cam and tappet outlines.

Principles involved in the preparation of simple designs of machine parts and suitability of different materials used in engineering. Design of valve and cocks. Pipes and cylinders, Hydraulic pipe flanges, etc.

Geometric construction of different forms of teeth and gearing. Working drawings of textile machine parts. More advanced cam and tappet design.

Tracing. Blue prints. Specifications.

Practical

Exercises covering the drawing and design syllabus outlined above

D. TEXTILE SCIENCE

1. *General Fibre Study.* Consideration of the more important textile fibres, with special reference to jute substitutes and competitors. Culti-

vation, production and distribution. Botanical features. Methods of extraction. Characters of the fibres of commerce. Physical and chemical characters. Vegetable fibres :—cotton, coir, flex, hemp, sunn hemp, ramie, mesta (bimli, kenaf), Congo Jute, roselle. Manila, sisale, henequen. Animal fibres :—wool, silk. Artificial fibres :—rayon, nylon, etc. with special reference to staple fibre. Paper yarns.

Classification and identifications of fibres.

Fibre characters in relation to spinning quality.

2. *Physics and Testing.* Units. Measurements Density and specific gravity. Hydrometers. Velocity and acceleration. Triangle and polygon of forces. Moments and couples. Simple machines. Velocity ratio, mechanical advantage, efficiency. Friction, work, power, energy. Harmonic motion. Elasticity Young's modulus. Creep. Rigidity, flexural and torsional. Angular velocity. Moment of inertia. Surface-tension. Viscosity.

Temperature and heat. Thermometry and calorimetry. Mechanical equivalent of heat. Conduction, convection and radiation. Hygrometry. Moisture-relations of jute. Conditioning.

Colour lustre, photometry. Stroboscopic methods. Optical instruments.

Physical characters of jute in relation to spinning quality. Factors effecting yarn strength, lustre, irregularity, extensibility, etc.

Electric current. Voltage. Resistance. Capacity. Power. Elementary theory of electrical measuring instruments. Electro-magnetism. Photo-electric phenomena and their application. Electronics in industry.

Measurements of fibre characters. Yarn twist, grist, strength, regularity, diameter, extensibility, etc. Measurement of cloth characters, width, weight per square yard, yarn counts and sett. Yarn crimp, tensile strength, porosity, etc.

Elementary Statistics.

3 *Chemistry.* Revision of fundamental ideas, Gas laws. Atomic and molecular weights. Equivalents. Salts and bases. Acidimetry and alkalimetry. Ionisation. Electrochemistry. Oxidation and reduction. Periodic classification. Equilibrium. Mass action. Catalysis. pH values, Buffer Action. Organic compounds. General textile applications of chemistry. Chemistry of the jute fibre and other important fibres. Oils, fats and waxes. Lubricating oils, batching oils. Starches, gums and cellulose. Rusting and corrosion. Alloys. Paint. Water and water-treatment, Organic solvents. Emulsions. Detergents. Wetting agents. Antiseptics. Materials of construction. Chemical processes—filtration, solvent extraction, distillation, etc.

Fuels.

Bleaching, dyeing and finishing. Chemicals used in bleaching, scouring, chemicking, souring, antichloring, etc. Bleaching plant. Damages caused in bleaching. Classes of dyes and application of dyes. Faults in dyeing. Fastness tests. Printing. Screen printing. Materials used in yarn dressing. Cloth finishing agents, filling and stiffening, weighting, softening, antiseptics, deliquescents. Proofing—waterproofing, fire-proofing, mildew-proofing, insect-proofing. Special treatments and finishes; woollenising, etc.

Effects of exposure to light and air, soil-bacteria, etc., on textile materials.

Practical

(a) *Fibre Study.* Recognition and identification of fibres and judgement of spinning quality. Microscopic examination of various fibres. Staining methods. Preparation of sections. Drying-twist test. Faults in jute and other fibres. Grading.

(b) *Physics.* Density of liquids. Measurements of "g." Friction. Simple machines. Polygon of forces. Screw jack. Fly-wheel and axle. Pulley systems. Use of measuring instruments. Torsion of rods. Thermometry. Conductivity of heat insulating materials. Dew-point and relative humidity. Viscosity and surface tension. Photometers. Stroboscopic experiments.

Measurement of resistance, current and voltage. Resistance thermometers. Thermocouples. Copper voltmeter. Potentiometer, etc.

Determination of mechanical equivalent of heat (J) by electrical method. Galvanometers. Power consumption in electric circuits.

(c) *Textile testing*. Practical exercises on subjects dealt with in the lectures. Examination of defective materials. Sampling methods. Estimation of regain.

(d) *Textile chemistry*. Exercises in acidimetry and alkalimetry. Water analysis. Estimation of available chlorine. Strength of peroxide solutions. Experiments with soaps, wetting agents, etc. Determination of pH values of various solutions, including chemicals. Loss of available chlorine in chemicking jute materials. Examination of some common chemicals used in mills. Flash-point of mineral oils. Application of dyes. Exhaustion of dyebath. Effect of assistants.

Syllabus for M.Sc. Biochemistry Course and Regulations therefor

1. Add after "XII Education" in Section 5, page 297 Chapter XXXVII, University of Calcutta Regulations, 1955 the following :

"XIII Biochemistry".

2. Add after "para. 5" of Section 6, page 297, Chapter XXXVII, University of Calcutta Regulations, 1955, the following new para :

"In Biochemistry there shall be five theoretical papers of four hours each, each carrying 80 marks. The practical examination shall extend over at least four days and shall carry 400 marks out of which 10% marks shall be set apart for sessional work, as recorded in the notes taken at the time of working in the Laboratory. and 10% marks for *Viva-voce*. The practical examination shall also comprise a biochemical problem carrying 50 marks only."

3. Add after "other subjects" in section 6A, page 298, Chapter XXXVII, University of Calcutta, Regulations 1955, the following :

"Except Biochemistry".

4. Add after the syllabus for "Education" in Section 7, Page 324, Chapter XXXVII, University of Calcutta, Regulations 1955, the following :

BIOCHEMISTRY

1. Candidates in Biochemistry will be expected to possess a sound knowledge of the general principles of the subject including the fundamental advances made in recent years.

2. The scope of Biochemistry in each paper shall be as follows :—

THEORETICAL

Paper I

First half ... Physical and Organic Chemistry.
Second half ... Physiology and Plant Biochemistry.

Paper II

First half ... Nutrition and Dietetics.
Second half ... Enzyme Chemistry and Technology.

Paper III

First half ... Microbiology.
Second half ... Antibiotics and Immunology.

Paper IV

First half ... Industrial fermentation.
Second half ... Food Technology.

Paper V

First half ... Metabolism.
Second half ... Hormones and special topics.

The detailed syllabus of the subjects mentioned in the above papers is as follows :—

1. *Physical Chemistry* : General ideas of colloids with special reference to size, shape and electrokinetic phenomena, diffusion, Donnan equilibria absorp-

tion, surface tension, membrane permeability, elements of thermodynamics and their application to biological systems, Radioactivity and isotopes—particularly their application in the study of biochemical reactions.

2. *Organic Chemistry*: Study of the functional groups in organic chemistry, general knowledge of carbohydrates, Proteins, Lipoids, Purines, Pyrimidines.

3. *Physiology*: General anatomical inter-relationship of different organs, digestion, absorption, metabolism, blood, heart and circulation, respiration, endocrine glands and their function, elements of nerve and muscle physiology and vision.

4. *Plant Biochemistry*: Plant Biochemistry in relation to photosynthesis, nitrogen fixation, biosynthesis of carbohydrates, proteins and fats.

FUNDAMENTAL BIOCHEMISTRY

5. *Nutrition and Dietetics*: A study of the factors necessary for proper nutrition including carbohydrates, fats, proteins, vitamins, inorganic substances and water. Study of the problems of human nutrition. Principles of Applied Nutrition in relation to feeding of populations, diet and nutrition surveys.

6. *Vitamins*: Physiology and chemistry of vitamins, study of their specific role in growth and nutrition, in health and disease. A study of antivitamins and analogues.

7. *Endocrines*: A general knowledge of hormones, including their chemistry and physiology and the relations of endocrine secretions to metabolism, growth, development and sex. Biochemical effects of the hormone, particularly the interglandular relationship.

8. *Enzymes*: The chemistry and the mechanism of the action of enzymes and the importance of their action in living tissues, with special reference to biological oxidations and allied phenomena, a study of enzyme activators and inhibitors.

9. *Metabolism*: A study of the intermediary metabolism of carbohydrate, fat and protein, with special reference to known metabolic paths.

10. *Special Topics*: Cellular metabolism, chemistry of muscle, blood, etc. Recent physical methods used in biochemistry including the use of isotopes.

11. *Microbiology*: Properties of colloidal systems applied to microbiological cells, the chemistry and structure of bacterial cell. Differentiation, classification and identification of bacteria. Bacterial growth and life cycle. Physical and chemical factors affecting growth and death. Bacterial metabolism: carbohydrate dissimilation, mineral metabolism, nutrition, etc. Bacterial respiration, carbon dioxide assimilation by autotrophic and heterotrophic bacteria. Bacterial association, symbiosis, antibiosis, etc. Bacterial dissociation, adaptability, variation, mutation, etc. Bacteriology of air, water, milk products, sewage, and soil including biological nitrogen fixation, sulphur cycle. The structure and chemistry of mold mycelium including the chemistry of germination and sporulation. The methodology of mold metabolism. Carbohydrate metabolism of fungi. Trace elements in the nutrition of fungi, other transformations in fungi, variation, physiological genetics, biochemical synthesis, etc. The structure and chemistry of yeast cells. Yeast metabolism in relation to alcoholic fermentation, Pasteur effect. Nutrition of yeast, Hybridisation, variation, etc.

12. *Immunology*: Principles and methods of immunology and their applications to various biological problems.

(APPLIED BIOCHEMISTRY)

13. *Industrial fermentation*:—Production of industrial alcohol, glycerol, etc. Manufacture of compressed yeast, beer, wine, rum, gin and other distilled liquors. Production of solvents like acetone, butanol, isopropyl alcohol, etc. Vinegar fermentation, Fermentative production of acids like lactic, citric, gluconic, kojic, etc. Microbiological production of vitamins, enzymes, etc.

14. *Enzyme Technology*:—Principles and methods of the production of industrial enzymes.

15. *Food Technology*:—Processing, preservation, distribution and storage of food-stuffs, cereals, vegetables, fruits, milk and milk products, meat, egg and fish, etc. Microbiology of foods. Study of the important groups of bacteria which are of significance in milk, meat and other food-stuffs and the methods used in the bacteriological control of these products.

16. *Vitamin Technology*:—Methods and techniques of the industrial production of vitamins from natural sources and by synthetic processes.

17. *Immunology*:—Preparation of immune sera and vaccines.

18. *Glands and glandular products*:—Methods of preparation or extraction of different hormones and their assay.

19. *Antibiotics*:—Microbial antagonism, techniques for studies in antibiosis. Penicillin, streptomycin, terramycin, etc.

Practical

PAPER I.

First half	... Organic Chemistry
Second half	... Physical Chemistry

PAPER II.

GENERAL BIOCHEMISTRY

PAPER III

First half	... Clinical Biochemistry
Second half	... Biochemical Problem.

PAPER IV

First half	... Microbiology & Immunology
Second half	... Industrial fermentation and Food Technology.

The detailed syllabus for the practical examination shall be as follows:—

1. *Organic Chemistry*:—Detection, preparation and estimation of organic compounds of bio-Chemical interest.

2. *Physical Chemistry*:—Experiments in relation to physico-chemical properties of colloids, electro-chemistry, molecular weight determination, etc.

3. *General Biochemistry*:—Assay of different vitamins, hormones, proteins, amino-acids, etc. by different methods. Preparation and purification of different enzymes and study of their activities including the action of activators and inhibitors of enzymes.

4. *Clinical Biochemistry*:—Analysis of blood, urine, etc.

5. *Microbiology and Immunology*:—Preparation of culture media, isolation and identification of organisms, staining of organisms, technique of aerobic and anaerobic cultures, counting of cells by different methods, etc. Phenol coefficient, Bacteriological analysis of water, sewage, soil, etc. Preparation of sera, vaccines, toxins, toxin-antitoxin titration, agglutination, Blood-grouping, etc.

6. *Industrial fermentation and food technology*:—Fermentative production and estimation of acids, solvents, etc. Analysis of ferment gas including the experiments on carbon balance. Preparation and standardisation of industrial enzymes. Chemical and bacteriological analysis of food-stuffs including milk, meat, etc. Practice in processing by canning, dehydration, refrigeration etc. of food-stuffs.

The above list of subjects may be modified or enlarged from time to time by the Syndicate on the recommendation of the Board of Post-Graduate Studies in Biochemistry when necessary.

5. Add "Biochemistry" after "Comparative Anatomy" in Section (e) of General (p. 325 of Regulations, 1955).

CHANGES IN THE EXISTING M.Sc. (Ag) REGULATIONS

Chapter XXXVII-AA

(As accepted by the Senate on 22nd February, 1956)

1. Regulations 1 and 3 : Delete the words "Part I and Part II" and in place of "Examinations" write "Examination" (in first line of Regulation 1 and in last sentence of Regulation 3).

2. Regulation 1A : Replace by the following :—

"1A. Any candidate who has passed the Bachelor's Degree Examination in Science in Agriculture, or in Science with Honours in an allied subject*, may be admitted to the M.Sc. (Ag) Examination provided he has prosecuted a regular course of study for not less than two academical years, according to the syllabus prescribed for the said examination in respect of the subject concerned, in a constituent college or in the Post-Graduate classes of the University."

3. Regulation 2 : Replace by the following :—

"Every candidate shall send in his application with a certificate in the form prescribed by the Syndicate and a fee of Rs. 80 to the Registrar not less than one month before the examination."

4. Regulation 4 : In second sentence (line 4), in place of "fifty" write "eighty".

5. Regulation 4A : In Para. 2, line 2, delete the words "in Part I or Part II as the case may be."

6. Regulation 6 : Replace by the following :—

"6. Examination in all subjects shall be held both by Theoretical and Practical papers and candidates shall be required to pass separately in the Theoretical and Practical portions of the examination as defined in the syllabi."

6A. The syllabi in 'Agricultural Botany' and 'Agricultural Chemistry and Soil Science' shall in each case consist of three groups of papers, viz., A, B, and C.

Under Group A there shall be one combination for Science graduates consisting of a theoretical paper and a practical paper on Agronomy carrying 100 and 50 marks, respectively and a theoretical paper on Statistics carrying 50 marks and alternatively another combination for Agricultural Graduates consisting of a theoretical and a practical paper of 100 marks each on Basic Science (Botany in case of 'Agricultural Botany' and Chemistry in case of 'Agricultural Chemistry and Soil Science').

Under Group B there shall be four theoretical and four practical papers of 100 marks each on the subject concerned.

(* Foot-note will remain unchanged)

Under Group C there shall be a theoretical and a practical paper of 100 marks each on some special topic on the subject concerned as defined in the details of the syllabi, provided that a candidate may be permitted to offer a thesis in subject concerned carrying 200 marks, duly certified by the teacher under whose guidance he carries out work, in lieu of the papers under Group C.

Each theoretical paper of 100 marks shall be of 4 hours and each theoretical paper of 50 marks of 2 hours, each practical paper of 100 marks shall be of 6 hours and each practical paper of 50 marks of 3 hours.

7. Regulation 7 : Replace by the following :—

"In order to pass the M.Sc. (Ag.) Examination a candidate must obtain a minimum of 33% marks in the aggregate of all theoretical papers and 40% marks in the aggregate of all theoretical papers. At the practical examination the candidates must produce note-books of their laboratory and field work which must be duly certified by the Professor and shall be taken into account in estimating their qualifications. If in any theoretical paper a candidate obtains less than 25% marks, these marks shall not be included in his aggregate. A viva-voce examination will be conducted in connection with the thesis paper and 25% marks will be reserved for the purpose. In order to pass in the thesis paper a candidate must obtain 40% marks."

A candidate shall be declared qualified for the Degree of Master of Science in Agriculture in the subject he offers, provided that he passes separately in the theoretical and practical papers and obtains 40% of marks in the aggregate of all the papers of the examination taken together. Candidates passing and obtaining 60% marks or over shall be placed in the First Class and others in the Second Class."

8. Regulation 8 : Replace paras. 1 and 2 only by the following :—

'As soon as possible after the examination the Syndicate shall publish a list of candidates who have passed the M.Sc. (Ag.) Examination in each subject arranged in two classes and in order of merit. Candidates shall be bracketed together, unless the Examiners are of opinion that there is clearly a difference in their merits.'

Re-adjustments of subject-matter in the four general papers

(Group B) on Agricultural Botany

AGRICULTURAL BOTANY

PAPER I

Theoretical Course

A

Morphology and Anatomy of important crop plants of India.

Systematic study of the families of Angiosperms with special reference to crop plants—food, feeder, fibre, beverage, narcotics species. Varietal study of important crop plants.

Natural distribution of economic plants, centres of origin of cultivated plants, Indian wild Flora from the point of view of improving food and industrial crops.

B

Plant introduction acclimatisation and utilisation. Methods of ecological studies in the field. Crop-weed association and competition. Plants in relation to soil conservation. Root development in crop and garden plants. Resistance to drought, cold and salt.

Practical Course

Dissection for comparative studies of the vegetative and reproductive parts of important crop plants of India.

Anatomical preparation of important plant structures.

Identification and description of plants and preparation of herbarium sheets.

Ecological studies in the field including crop-weed competition and association, population, etc.

Study of root system of at least two rabi and two Kharif crops and weeds.

PAPER II

Theoretical Course

A

Advanced treatment of the plant cell. Water relations. Mineral nutrition. Carbon and nitrogen metabolism. Physiology of heterotrophic plants. Respiration and enzymic activity of plant parts and their bearing on storage. Dormancy. Germination. Viability and modern seed testing methods. growth phase development, vernalisation and photo-periodicity. Hormones, polarity, rooting of cuttings, grafting principles, stock-section relationship.

B

A general review of Physiological studies of crop plants with special reference to rice, wheat, sugar-cane, Brassica, ground nut, cotton, jute, tobacco, citrus and mango.

Practical Course

Devising experiments on osmosis, determination of turgor pressure, root pressure, plasmolysis, determination of grand period of growth, respiration, photosynthesis, measurement of acidity chlorophyll estimation. Water culture

experiments. Seed testing methods, Experiments on rooting of cuttings, layerings and methods of grafting.

Application of sampling technique, growth analysis and determination of wilting co-efficient of at least two khariff and two rabi crop plants.

PAPER III

Theoretical Course

A

Embryology—development of the male and female gametophytes, gametogenesis, fertilisation, abnormalities in the life cycle including apomixis, polyembryony, parthenogenesis and parthenocarp.

Studies on chromosome structure and behaviour on somatic and germ cells, heteroploidy, structural hybridity, general concept of gene structure. Chromosome theory of heredity. Introduction to gene mutation.

B

Principles of genetics including Mendelian laws. Pureline theory relationship between linkage and crossing over, multiple factors, determination of sex studies on inbreeding and heterosis, degeneration of varieties, principles of backcross. Sterility and incompatibility. Graft hybrid.

Principles of biometry. Genetics in relation to origin of species.

Practical Course

Germination of pollen grain in vivo and in vitro, study of pollen sterility. Embryoculture.

Cytological techniques including amears and microtome preparations for study of chromosome structure and behaviour in somatic and germ cells. Studies on pollen division, methods of pollen preservation. Demonstration of relevant cytological slides.

PAPER IV

Theoretical Course

A

Brief history of plant breeding, genetic basic, scope, Importance of plant collection in relation to plant breeding. Breeding of plants for economic characters and special conditions. Clonal selection.

B

A general review of genetical studies on crop plants with special reference to rice, maize, wheat, sugar-cane, millets, oats, cajanus, gram, brassica, sessamum ground nut, linseed, cotton, jute, tobacco.

Practical Course

Application of breeding techniques in the field with special reference to selected crops.

Design and analysis of varietal trials.

Analysis of pureline and hybrid population by statistical methods taking at least two crop plants as examples.

Chromosome studies of the parents and the hybrids of sesamum, wheat, Triticale and Brassica.

Also resolved that these changes shall come in force with effect from 1956, Part I Examination and 1957 Part II Examination.

Notification.

"It is notified for the information of the public that in extension of the affiliation already granted the Bankura Sammilani College has been affiliated in English, Bengali, Vernacular, Civics, Commercial Geography and Commercial Arithmetic and Book-Keeping to the I.A. standard with effect from the commencement of the session 1956-57, i.e. with permission to present candidates in the subjects from 1958 and not earlier. It is also notified that the college has been granted permission to hold classes in the evening".

D. CHAKRAVARTI,
Registrar

Notification

It is notified for the information of the public that in extension of the affiliation already granted, the Uttarpara Raja Peary Mohan College has been granted affiliation in Mathematics, Physics and Chemistry to the B.Sc. pass standard from the commencement of the session 1956-57 i.e. with permission to present candidates in the subjects at the examination from 1958 and not earlier.

D. CHAKRAVARTI,
Registrar

Notification

It is notified for the information of the public that in extension of the affiliation already granted, the Ramsaday College, Amta, has been granted affiliation in Physics, Chemistry and Mathematics to the B.Sc. Pass standard from the commencement of the session 1956-57 i.e. with permission to present candidates at the examination in the subjects from 1958 and not earlier.

D. CHAKRAVARTI,
Registrar

Notification

It is notified for the information of the public that in extension of the affiliation already granted, the City College has been granted affiliation in Zoology to the B.Sc. (Hons.) standard from the Commencement of the session 1956-57, i.e. with permission to present candidates at the examination in the subject from the year 1958 and not earlier.

D. CHAKRAVARTI,
Registrar

UNIVERSITY OF CALCUTTA

Notification. No. C/12/62 (Affl.)

It is hereby notified for general information that in extension of the affiliation already granted, the Vidyasagar College, Nabadwip has been affiliated in Physics, Chemistry and Mathematics to the B.Sc. (Pass) standard with effect from the commencement of the session, 1956-57, i.e. with permission to present candidates for the examination in the subjects from 1958 and not earlier.

Senate House,
The 2nd July, 1956.

D. CHAKRAVARTI,
Registrar

Notification

It is hereby notified for the information of the General public that Santipur College has been granted affiliation in Biology to the I.Sc. Standard and in English, Bengali, Vernacular, History, Economics and Sanskrit to the B.A. Pass standard from the commencement of the session 1956-57, i.e. with permission to present candidates in the subjects at the examination from 1958 and not earlier.

D. CHAKRAVARTI,
Registrar

Notification.

It is notified for the information of the public that in extension of the affiliation already granted the Balurghat College, West Dinajpur, has been affiliated in Physics, Chemistry and Mathematics to the B.Sc. Pass Standard with effect from the commencement of the session 1956-57, i.e. with permission to present candidates in the subjects at the examination from 1958 and not earlier.

D. CHAKRAVARTI,
Registrar

Notification

It is notified for the information of the general public that in extension of the affiliation already granted, the Fakirchand College, Diamond Harbour has been granted affiliation in English, Bengali Vernacular, History, Economics & Bengali to the B.A. Pass standard from the commencement of the session 1956-57, i.e. with permission to present candidates at the examination in the subjects from 1958 and not earlier.

D. CHAKRAVARTI,
Registrar

Notification

It is notified for the information of the public that in extension of the affiliation already granted the Prasannadeb Balika Mahavidyalaya, Jalpaiguri, has been affiliated in Philosophy to the B.A. Honours standard with effect from the commencement of the session 1956-57, i.e. with permission to present candidates at the examination in the subject from 1958 and not earlier.

D. CHAKRAVARTI,
Registrar

Notification

It is hereby notified for the information of the general public that Khudiram Bose Central College has been granted affiliation in English, Bengali Vernacular, Civics, Commercial Geography, Commercial Arithmetic and Book-keeping to the I.A. standard from the commencement of the session 1956-57, i.e. with permission to present candidates in the subjects at the examination from 1958 and not earlier.

D. CHAKRAVARTI,
Registrar

Notification

It is notified for general information that under Section 11 of the First Statutes of the University of Calcutta relating to the 'Affiliation of Colleges' to the University, the Chancellor has been pleased to approve of the recommendation of the Syndicate that the Jangipur College, Murshidabad shall be affiliated in English, Bengali Vernacular, History, Economics and Alternative Bengali up to the B.A. (Pass) standard with effect from the commencement of the session 1956-57 with permission to present candidates at the Examination in the subjects from 1958 and not earlier.

D. CHAKRAVARTI,
Registrar

Notification

It is hereby notified for general information that under Section 11 of the First Statutes of the University of Calcutta, relating to the 'Affiliation of Colleges' to the University, the Chancellor has been pleased to approve of the recommendation of the Syndicate that the Malda College, Malda, shall be affiliated to the Calcutta University in Biology to the I.Sc. standard with effect from the commencement of the session 1956-57 with permission to present candidates for the examination in the subject from 1958 and not earlier.

D. CHAKRAVARTI,
Registrar